DOCUMENT RESUME

ED 127 769 EC 091 002

AUTHOR Munson, Harold L.; And Others
TITLE Career Education for Deaf Students: An In-Service Leader's Guide.
INSTITUTION Rochester Univ., N.Y. Coll. of Education.
SPONS AGENCY Bureau of Education for the Handicapped (DHEW/OE), Washington, D.C.
PUB DATE 75
NOTE 208p.

EDRS PRICE MF-$0.83 HC-$11.37 Plus Postage.
DESCRIPTORS Aurally Handicapped; *Career Education; *Deaf; Educational Objectives; Exceptional Child Education; Guidelines; *Inservice Teacher Education; *Instructional Materials; Lesson Plans; *Program Descriptions; Program Development; Secondary Education; Special Education Teachers; Vocational Education

ABSTRACT

Presented is the leader's guide developed as part of a 3-year project to generate career education activities involving classroom teachers and career education materials for use with deaf secondary level students. Part I, on a career education program model, provides information on the program rationale (including various program channels), administrative considerations (including commitments, priorities, and operational considerations), objectives of career education (concerning both student attitudes and competencies), and program activities and materials. Considered in Part II, on the career education inservice program, are inservice program procedures, materials, and evaluation. Ten lesson plans for the inservice sessions are provided which cover such topics as career insights and self awareness gaming, learning the gaming techniques, and clarifying work attitudes and values. Over half the guide consists of appendixes which provide detailed lists of inservice session objectives, scripts for slide audiovisual materials, and exercises. (DB)

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CAREER EDUCATION FOR DEAF STUDENTS:

AN IN-SERVICE LEADER'S GUIDE

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1975

EC091002

The activity which is the subject of this report was supported in whole or in part by the U. S. Office of Education, Department of Health, Education and Welfare. However, the opinions expressed herein do not necessarily reflect the opinion or policy of the U. S. Office of Education, and no official endorsement by the U. S. Office of Education should be inferred.

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ACKNOWLEDGEMENTS

In 1971, twelve schools for the deaf in New York State combined resources in a Cooperative Research Endeavors in the Education of the Deaf (CREED) project to develop a career education program model for hearing handicapped students. The CREED project utilized action research to generate career education activities involving classroom teachers and to create career education materials to facilitate the career development of deaf youth. The project was conducted over a three year period from 1971-74. Three of the twelve schools served as the research base for the project activities: the Rochester School for the Deaf (Rochester, N.Y.), the St. Mary's School for the Deaf (Buffalo, N.Y.), and the New York State School for the Deaf (Rome, N.Y.). This project resulted in the evolvement of a career education program model for schools for the deaf consisting of five basic career education components: vocational gaming, making field trips, learning about the work functions, using career information, and clarifying work values and attitudes.

In 1973, the Bureau for the Education of the Handicapped, United States Office of Education, funded a two year project to develop an approach for preparing the staff of schools for the deaf to institute the use of the program model and the career education materials. This in-service career education guide is the result of this project.

Many people have contributed to this guide. First, the teachers and administrators in the three CREED demonstration project schools were enormously helpful in the creation, development and pilot use of the career education materials and in the application of theoretical concepts to a career education program model for their deaf students. The superintendents and principals of the three demonstration schools, Ralph Hoag and Leonard Zwick (the Rochester School for the Deaf), Sr. Nora Letourneau and Sr. Virginia Young (St. Mary's School for the Deaf), and J. Jay Farman and Henry Bjorlie (New York State School for the Deaf) were most generous with their time and facilities and very understanding of the problems and pitfalls which were encountered as new materials and methods were being explored. As members of the CREED staff, Judy Egelston, William Howard, Patricia LaFrance, Gordon Phillips, Marilyn Williams and Nora Shannon worked in the preparation of materials to implement the various components in the program model.

The liaison in-service training teams in the BEH project who tested the career education in-service program that constitutes Part II of this guide provided valuable feedback and evaluation information. Their helpful suggestions and reactions were incorporated in the refinement of the program model and in the final revision of the twenty-hour career education in-service program. The following schools for the deaf piloted the career education in-service program with their faculty and staff in 1974-75:

American School for the Deaf (West Hartford, Connecticut)
Governor Baxter State School for the Deaf (Portland, Maine)
Bureau for Hearing Handicapped Children - Board of Education of the City of New York (New York, New York)
California School for the Deaf (Berkeley, California)
Caritas Day School for the Deaf (Rockville Center, New York)
Cleary School for the Deaf (Ronkonkoma, New York)
Florida School for the Deaf (St. Augustine, Florida)
Georgia School for the Deaf (Cave Spring, Georgia)
Kansas State School for the Deaf (Olathe, Kansas)
Kentucky School for the Deaf (Danville, Kentucky)
Lexington School for the Deaf (Jackson Heights, New York)
Margaret S. Sterck School for the Hearing Impaired (Newark, Delaware)
Model Secondary School for the Deaf (Washington, D.C.)
North Dakota School for the Deaf (Devils Lake, North Dakota)
Rochester School for the Deaf (Rochester, New York)
St. Francis de Sales School for the Deaf (Brooklyn, New York)
St. Mary's School for the Deaf (Buffalo, New York)
St. Rita School for the Deaf (Cincinnati, Ohio)

Members of both the CREED career education demonstration project and the BEH career education in-service project staffs have worked diligently and faithfully to produce a career education program for deaf students that holds much promise for enhancing and facilitating the vocational learning-maturation of deaf learners. The following people, as members of the project staff, made significant contributions to the overall development of this guide: Judy Egelston, William Howard, David Mercaldo and Gordon Phillips.

In all of the schools for the deaf that were in some way affiliated with either of these projects many teachers were involved. Each of these teachers offered some insights which were extremely helpful. Since the major thrust of this career education program model occurs in the classroom, the contribution of every teacher has been an important and necessary part of the project.

To help plan and guide the total project effort, a team of consultants was utilized. Their periodic review of project achievements and their suggestions for future endeavors added a vital dimension to the work of everyone who was a part of this effort. The members of the consultant team were Dr. Richard G. Hehir, Chief, Bureau for Physically Handicapped Children, New York State Education Department; Dr. Ralph L. Hoag, Superintendent, Arizona State School for the Deaf and the Blind; Dr. Robert R. Lauritsen, Project Coordinator, Technical Vocational Program for Deaf Students, St. Paul Technical Vocational Institute; Dr. George Propp, Assistant Director, Specialized Office for the Deaf and Hard of Hearing, U. of Nebraska; Dr. E. Ross Stuckless, Director, Office of Educational Extension, National

Technical Institute for the Deaf; Dr. Norman L. Tully, Assistant Professor of Counseling, Department of Counseling, Gallaudet College; Mr. Leonard Zwick, Superintendent, Rochester School for the Deaf.

To all of the people who have helped in this important mission, the project staff and I extend our gratitude and thanks.

Harold L. Munson
Project Director
June 30, 1975

PART I

A CAREER EDUCATION PROGRAM MODEL

INTRODUCTION

The educative process should provide for all the different areas of human maturation. Vocational learning-maturation (career development), as one of those areas, is often ignored or delayed. Career development is frequently relegated lower order priority and is usually squeezed out of the educative process because "there just isn't time." It gets much verbal sanction but little commitment.

A great deal of this neglect is founded on myths and stereotypes about "picking an occupation" and the dynamics attendant to occupational choice. This program is an effort to confront the "do nothing" reality and to reorder our educational priorities so that more attention can be directed to the process of vocational learning-maturation. Career development encompasses more than occupational exploration and educational planning. It is a complex dimension of human development with its own distinctions and differentiations. Even with these distinguishable characteristics, it is inextricably intertwined with other facets of human maturation. It rests on self-maturation through the development of the self concept and the emergence of self identity. It depends on mental maturation and the ability of the individual to process information in problem solving and decision making. It is related to social maturation and the development of values and ideals as these are evident in everyday living.

Career guidance is a developmental process extending over a period of time. In the process, one period of time can be as critical as another. However, the learning exposures of the early, formative years have a significant influence on the development of career insights and the achievement of a fuller measure of self awareness. Much of what an individual learns during these years are crucial to his future problem solving and decision making behaviors. The process of career evolvement is well underway before it is given any attention in the educative process. Considering vocational learning-maturation as a developmental process constrasts sharply with the "test 'em and tell 'em" approach that has been so prevalent in career planning. The very few interviews to discuss one's future after graduation is hardly a realistic way of dealing with this aspect of human maturation. If we are going to truly help young people explore, think about and experience their "self" and their "self-in-situation," as these are important in career building, we shall have to drastically change our program elements and our educational priorities. Career development involves "learning about" and "trying out." A program that attends to this kind of vocational learning and maturing provides for <u>exposure</u> and <u>experience.</u>

THE RATIONALE OF THE PROGRAM

"What are you going to be when you grow up?" This question, so frequently directed to young people, speaks to career development activities as they have been traditionally provided. Our focus has been on the choice of an occupation. Our efforts to help have been mainly informational--that is, providing occupational information. Our process has consisted mainly of helping individuals to match their talents (abilities and interests) with tasks (available occupations). This restricted approach to vocational learning-maturation, confined to the late adolescent and young adult years, is no longer tenable.

Most school sponsored career development activities for the deaf are sporadic and incidental. They consist mainly of an occasional guest speaker, a few occupational monographs written for hearing people, and a field trip to a place of business now and then. These limited activities culminate in a few interviews with a rehabilitation counselor who may help the student find a job. Career exposures, then, are few and limited. The social and psychological factors of job performance are frequently ignored. The important demands of on-the-job communication and the problems that the deaf worker will encounter are rarely brought to the attention of young people. While it is important to recognize and applaud any attempts to deal with this vast void in the education of the deaf child, we must recognize the need to attend to the career education of the deaf in a more on-going and planned manner.

A Theoretical Base

Research in vocational psychology suggests strongly that career evolvement is a developmental, dynamic, comprehensive process that extends over a long period of time - probably a lifetime. Many factors and considerations that go into career evolvement have been identified. We know that the process is as complicated and as complex as any facet of human maturation. It involves both the cognitive and affective domains of human learning.

What one knows and how one thinks and feels are all important in living and working. Programs geared to the process of vocational learning-maturation are designed to stretch what people know and think--both about themselves and their world. In this sense, individuals are learning. As individuals gain in their understanding of "self," they are maturing.

Vocational learning relies on exposure to many different areas of knowledge. It encompasses far more than expanding occupational horizons by providing information about educational or occupational opportunities. It begins with making individuals aware of their own "self" as well as their environment. It means helping them to learn who they are and how they

behave. The content of vocational learning flows from the study of work, work roles and work relationships. Young people need to be exposed to ideas and concepts that will enhance their ability to understand the world in which they live and work. They need to learn how to evaluate their past and present experiences as well as those in the future.

Vocational maturation emerges with experience. Young people need opportunities to test who they are and how they function. For young people, the source of their experiences lies in the school, the home and the community. Since they are increasingly excluded from experiences in the labor market, the fountainhead of their maturation lies in whatever significance and meaning they can garner from their day-to-day activities. This imposes a great responsibility and commitment for education to accommodate the process of vocational maturation. Real work experiences are possible in the educative process. We have to learn how to take advantage of the opportunities which are afforded young people to test themselves in their regular classroom endeavors every day. This necessitates changing our traditional instructional strategies so that classroom experiences can also provide for vocational learning-maturation along with subject matter learning.

The vocational learning-maturation process rests on teaching individuals how to think. They must be able to organize and utilize all that they know and feel. Helping individuals to learn how to process information is a way of providing them with the skills of decision-making and problem solving. Learning how to think is learning how to compare, critique, imagine, summarize, interpret, classify, observe, and hypothesize. All of these skills are utilized in making choices and decisions. In examining their thinking processes, individuals learn about the judgments that are involved in their decisions and choices.

Four Program Channels

There are four basic channels that feed the career development process: (1) the self, (2) the conceptual, (3) the informational and (4) the experiential. If the career development process is to be properly nourished, a program must provide for continuing input utilizing all four channels. Each of these channels can be broadly characterized as follows:

The self channel. Self exposures focus on one's "being" and deal with the many concepts of self that make up one's self-identity. Exposures that contribute to "Who am I?" offer individuals an opportunity to explore and assess not only their abilities and interests but their values, needs, life goals, motivations, aspirations, physical capacities, behaviors and personal traits. Continuing self appraisals help the individual to distinguish one's uniqueness and to differentiate among one's many concepts of self. Clear concepts of self help the individual to discover distortions in one's view of

self and to examine discrepancies between the way one believes he/she performs and the way he/she does, in fact, perform. Since the development of the self concept (the generalized "I") is dependent, in part, on the reactions and evaluations of others, the disadvantagement of the deaf child is obvious. Many communications are unheard or misunderstood. Hearing folks, who are unable to communicate with deaf children, often tend to be insensitive to their presence or to ignore them. The deaf child is repeatedly denied the many human interactions that become the source of clear and positive concepts of self. In the education of the deaf, therefore, provision for the self channel of career development has particular significance.

The conceptual channel. The conceptual channel is concerned with introducing concepts about work, work roles and work functions. It offers exposures that teach about work and the ways of working. It provides deaf learners with concepts which they can translate to their own life style. It provides them with information which they can use as they assess their attitudes toward work, establish their work values or investigate their work motivations and satisfactions. Concepts of work develop over a period of time. They are formed as learners are able to master and manipulate the abstract information which is available to them. Learners need episodes that provide them with opportunities to deal with abstract ideas and thoughts and to develop mental impressions. Language serves an important function in conceptual learning and deaf learners need to master the vocabulary of work in order to organize and synthesize their learnings. Words must have meaning lest they become sources of "empty verbalism" whereby students parrot definitions and ideas which they do not understand and cannot use. As deaf learners are able to comprehend concepts of work, they are able to manipulate their "knowing" in making their own discriminations and in discovering their own distortions. They make continual use of these concepts in their day-to-day decision-making and problem-solving.

The informational channel. Informational exposures provide for input of a factual nature and deal basically with expanding the deaf student's knowledge about specific jobs in the world of work. All students need information about occupational environments and opportunities. Deaf students need to know about the duties and qualifications of different jobs. They need to know a great deal about the receptive and expressive communication demands of these jobs. They need very specific information about the nature of these demands and the level of skill required to meet them. They need information about other on-the-job problems which the deaf worker can expect to encounter. Their several specialized informational needs mandate a new look at the standard sources of information and the traditional techniques of implementation that have been employed heretofore. The informational needs of deaf students mandate materials which have been prepared especially for them.

The experiential channel. Experiential exposures permit deaf learners to test their feelings about and behaviors in work roles and work role relationships. Through experiential episodes, individuals can clarify their feelings about work and work functions and enhance their understanding of the interpersonal aspects of job performance. This can be accomplished in real or life-like (simulated) situations as a part of classroom or other school tasks. In the past we have tended to think of real on-the-job opportunities as the only source of work experience. We have excused career development shortcomings on the grounds that labor legislation increasingly excludes young people from these exposures, that employers will not cooperate in developing work-study programs, or that unemployment patterns have limited part-time and summer work jobs. Although these conditions do exist, there are other strategies for involving deaf students in the actual dynamics of work. School work involves working with data, people and things. Most day-to-day classroom tasks involve work activities and communication demands which are as real as those encountered in many work situations. The work functions inherent in the demands of school, the pressure of completing these tasks, and the conditions in which these tasks must be accomplished are a source of meaningful experiential learning.

These four program channels each make their own discrete contribution to the career development process. A comprehensive career education program insures that each channel is operating at maximum capacity. It attends to the interactive nature of these channels as they contribute exposures and experiences which lead to the formation of career insights and to the extension of individual self awareness.

BASIC ADMINISTRATIVE CONSIDERATIONS

In introducing a career education program, school administrators must give careful attention to several philosophical and psychological considerations. These deliberations involve a reconsideration of educational commitments and priorities. Some concerted effort must be directed at relating career education to the objectives of the instructional program of the school.

Considering Commitments

There are several areas of commitment which should be explored before a program of career education can be implemented significantly. In the following sections, the importance of the curriculum, the learner, and communication are considered as well as some of the basic notions which undergird the career development process

Commitment to the curriculum. Schools are committed to academic goals. The teaching of subject matter facts and skills is considered the main business of the school. Making room in the curriculum for exposures that can enhance vocational learning-maturation is difficult when the goals of academic achievement are primary. The "knowledge explosion" makes most difficult those decisions about what should be included in the courses of study offered. It compounds choices about the types of learning exposures and experiences that can be incorporated in an already overloaded curriculum.

Matters of curriculum selection, however, may be more readily resolved if schools should decide to emphasize teaching children to think--that is to process information whatever its content or form. The Educational Policies Commission of the National Education Association cites the development of the ability to think as a major concern of the school.[1] They state, "The purpose which runs through and strengthens all other educational purposes--the common thread of education--is the development of the ability to think. This is the central purpose to which the school must be oriented if it is to accomplish either its traditional tasks or those newly accentuated by recent changes in the world. To say that it is central is not to say that it is the sole purpose or in all circumstances the most important purpose, but that it must be a pervasive concern in the work of the school."[2] If schools were to implement this statement of purpose, curriculum commitments

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[1] Educational Policies Commission, The Central Purpose of American Education. Washington, D.C.: National Education Association, 1961.

[2] Ibid., p. 12.

would be based on the development of the thinking processes in relation to content-oriented considerations. The contribution of such a commitment in enhancing decision-making and problem solving skills would be considerable.

The development of the thinking powers of an individual, is of course, related to other objectives of the educative process. The Educational Policies Commission emphasizes the development of the free mind of man. They say, "To be free, a man must be capable of basing his choices and actions on understandings which he himself achieves and on values which he examines for himself. He must be aware of the basis on which he accepts propositions as true. He must understand the values by which he lives, the assumptions on which they rest, and the consequences to which they lead. He must recognize that others may have different values. He must be capable of analyzing the situation in which he finds himself and of developing solutions to the problems before him. He must be able to perceive and understand the events of his life and time and the forces that influence and shape those events. He must recognize and accept the practical limitations which time and circumstance place on his choices. The free man, in short, has a rational grasp of himself, his surroundings, and the relation between them."[3]

This challenge to the educative process seems clear and forthright. It provides focus for the teaching-learning process and for all that occurs in school. It speaks to a school program that helps individuals to develop their thinking skills, e.g. imagining, classifying, comparing, analyzing, synthesizing and to use these skills in pursuing their own goals. Within this framework, commitments to the curriculum of the school can be formulated. These decisions assume considerable significance for the nature and type of career education exposures and experiences to be provided for the learners.

Commitment to the learner. While it is true that the cognitive goals of the school are important, some consideration for the individuality of the learner is necessary. Learners, as individuals, need time to learn about themselves. Their self concept is an important part of their learning-maturation. While educators espouse a belief in the doctrine of individual differences, their behavior does not always reflect such a belief The school has a responsibility for the development of the self concept. Learners are exposed to new concepts about themselves every day. Established concepts of self are continually being reinforced or reevaluated. Focusing on concepts of self that impinge on career evolvement can be a natural and orderly part of the learner's maturation. All young people need help in

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[3] Ibid., p. 4.

exploring the many facets of their own "being." They enjoy exploring their interests, abilities, goals, values and motivations. They like expressing their attitudes and opinions and talking about the different pressures they experience and the needs they feel. Opportunities for this kind of learning must be regularly and continually afforded. Self exploration should not be left to chance. Yet in its present incidental or haphazard treatment, it is quite apt to be ignored or taken for granted.

Deaf learners need this opportunity even more than their hearing counterparts. The nature of their often silent, lonely existence deprives them of many experiences that could have meaning for their own "self" exploration. In fact, this deprivation can result in the formation of negative self feelings associated with a lack of worth and belongingness.

Many concepts of self are learned from others. Ideas about one's "self" are shaped and influenced as one interacts with others. These many concepts of self, as they are internalized, become a part of the emerging self concept. In a global sense, then, they determine the general direction of the self concept. The integration of many positive concepts of self can lead to good feelings (a positive self concept) while the opposite can lead to negative perceptions and feelings. Although education does provide for varied experiences and exposures, it tends to offer repetitive opportunities and to reinforce prior feelings. For example, learners who do their work correctly, neatly and punctually get a variety of "self" reinforcements that are positive. Learners who do not do their work correctly or neatly get negative reinforcement. Teachers can influence the development of the self concept in both directions. Since the classroom offers numerous opportunities to provide for "self" exploration, it is logical to expand the activities which contribute to the development of concepts of self and which provide opportunity for the clarification of feelings about self.

Commitment to communication. Most schools for the deaf are committed to developing each individual's ability to communicate. Much time and energy is expended providing for the development of language and communication skills. Whatever communication methods are employed, developing both the receptive and expressive domains of communication is a major objective.

For deaf students, one of the most difficult aspects of seeking and maintaining employment involves their ability to communicate. Their skills and talents in almost any endeavor are minimized if they are unable to communicate effectively. The essential nature of developing and improving communicative abilities and skills is clearly a major commitment. On the other hand, however, this commitment should extend beyond the diagnostic and the technical attention it presently receives. The program should engage deaf learners in exposures whereby they can appraise and evaluate their methods

of communication. Such appraisals do not need to be self defeating or limiting. They can be self enhancing and facilitative. Deaf students need exposures that cause them to become aware of their strengths and their potential as well as their weaknesses and limitations. They need experiences which will help them to assess the development of their communication skills in relation to a variety of work functions, conditions of work and work settings. In this way, they can learn to accept their hearing limitations. They will learn how these limitations will affect them in meeting the requirements of different jobs and in fulfilling different work functions. They will learn how to use their communication skills to enhance their employability. They will become aware of ways in which they can modify their communicative behaviors to enable them to perform job tasks that might otherwise be closed to them.

Commitment to vocational learning-maturation. We have consistently divorced school life and school work from work life and work roles. By separating school from work we limit the importance of school in the career development process. Children work in school. In fact, they engage in many of the same tasks and functions as many workers. When we think of work as encompassing a variety of functions,[4] it is logical to relate the functions required in performing school tasks to those required in holding different jobs. For example, many jobs in the American labor market involve work activities of a copying, compiling, computing or analyzing nature. These four work functions are classified as data-oriented work. These four work functions are involved in many different school activities. While the setting and the conditions for these work experiences are different, the nature of the work function is sufficiently similar. We should be able to use classroom opportunities to help children explore the nature of these work functions and their feelings about them. These are real work experiences and we need to capitalize on them in career education programs.

Many administrators readily express a commitment to career education conceiving it as mainly the dispensing of information about occupations. In the past the primary focus of career exploration has been on making young people more aware of job opportunities and work roles. Programs have ignored aspects of career education associated with self awareness. They have relied on standardized tests or inventories that measure interests and abilities. These older and more limited conceptions of career education must be reviewed. Current commitments to career education should reflect a more developmental and dynamic view.

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[4] the United States Department of Labor has classified every occupation in the American labor market according to the most significant work functions required in performing the job. Their classification system is based on the premise that every job requires a worker to function in relation to data, people, or things and identifies a hierarchy of work functions associated with each of these orientations.

Considering Priorities

Priorities flow from commitments. These considerations represent some of the items which should get preferential attention.

Instructional priorities. The teaching-learning process in the education of the deaf relies heavily on concrete learning utilizing rote memorization and replicative recall. The presentation of factual information prevails. Teaching practices rely heavily on an active teacher role in the transmission of information and in student interaction. The printed word is used to supplement the exchange of ideas. Thus, a great deal of the deaf student's learning focuses on the attainment of knowledge ("stockpiling information"). On the other hand, there is a growing concern in deaf education that emphasizes learning which will help the deaf student to cope with the day-to-day matters of life more effectively.

Since the historical emphasis in vocational guidance has been on "the choice", it would be most easy to develop a program of career education resting on traditional beliefs and practices. However, the development of concepts about work, work functions and work roles must be a significant part of the program. Some priority in the instructional activies, therefore, must be directed toward abstract thinking and concept learning. Both the conceptual and informational channels are rich sources of information whereby deaf students can gain experience in abstract learning. Abstract learning (i.e. concept attainment, inquiry training) is symbolic and semantic using both symbols and words to express general thoughts and ideas. Abstractions activate different information processing mechanisms and engage the learner in a variety of mental processing manipulations.

Guilford speaks to both divergent and convergent production.[5] Much of the teaching in the education of the deaf results in convergent production. In helping deaf youth to become more facile in processing information and in communicating (expressively) information, we need to provide more exposures involving abstract learning. We have to give more priority to methods of teaching which stimulate more divergent production.

Related closely to the priorities of concrete-abstract learning are matters relating to the use of visual forms in the teaching-learning process. Deaf education has, of necessity, emphasized visual inputs. Yet, appropriate experiences utilizing other forms of reception could be employed. Learning exposures and experiences which prepare them for the communicative aspects of work must have some instructional priority. Many career education activities can be developed to involve students in using forms of

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[5] J. P. Guilford, The Nature of Human Intelligence. New York: McGraw-Hill, 1967.

communication which are not customarily employed in the learning process. It is important that students deal with the difficulties of on-the-job communication. They need experience in coping with the elements of interpersonal communication such as they will encounter with co-workers and supervisors on a job. They need help understanding and using the language and vocabulary of work. These are learning exposures that cannot be appropriately presented by pictures or other visual strategies alone. Such experiences are often new and require a great deal of teacher patience and creativity. Without some instructional priority for these endeavors in the form of administrative support, many teachers of the deaf will retreat to the more secure and more tangible aspects of traditional teaching.

Most teachers are concerned with the administrator's evaluation of their teaching effort. Their instructional priorities are dependent on the system of rewards and punishments as they perceive them. Teachers who are going to be held responsible for academic achievement (particularly as this is measured by standardized achievement tests) cannot be expected to adapt or minimize their subject matter content to accommodate the career development needs of their students. Relating subject matter content to the world of work requires time and effort that just isn't practical when working under the restriction of other priorities. When a job depends on one set of priorities, it doesn't make sense to attend to another. Therefore, it is essential to establish clearly the instructional priorities for subject matter content and career education activities.

A curriculum that is adaptable and flexible to the career maturation needs of students is highly desirable. The curriculum can be used to integrate concepts and information. It can be used to foster activities that will contribute to the developmental process of career learning. Where curriculum adaptation is not feasible or when administrators do not feel that regular academic learning can be forfeited, it will be necessary to find other specific times in the school day where instructional attention to vocational learning-maturation can be consistently and regularly presented.

Teacher attitudes and priorities. Teacher interest in the career learning-maturation process and teacher willingness to engage in activities that enhance the process vary widely. How they feel about the meaning and significance of these activities is the product of their own beliefs, motivations and experiences. Their attitudes and beliefs are extremely important in determining if, when and how a school should adapt a career education program. The key to the success or failure of career education in the classroom is dependent on the priorities reflected in these teacher attitudes. Teachers who appear to be secure, open and flexible seem to be able to adapt their teaching strategies to the process of career learning-maturation. Teachers vary greatly in their ability to move from the concrete, routine and repetitive aspects of subject matter orientations to the more subjective, personal and individualistic features of career education. Teachers who are wedded to their subject matter and geared to teaching information are more likely to have difficulty with the abstract and conceptual facets of career insight and self awareness exposures.

Teachers differ widely in their conception of occupational information programs. Many teachers are concerned only with the external forces and factors of career selection. They emphasize only the reality of job limitations imposed by a hearing impairment. Their knowledge of work possibilities for the deaf is usually limited. They are strongly influenced by societal stereotypes. Very few have any knowledge of the resources which can be used to obtain more information about a particular job or job family. Very few have any idea of people or professional workers to whom they can refer students who need career maturation help. While hearing teachers of the deaf have an understanding of the communication problems of the deaf worker, they are less knowledgeable of ways in which work routines can be modified or adapted to accommodate hearing handicaps. Teachers can become interested and willing to participate in career education activities if it is expected of them (they will do it if they have to). However, without some total school effort to engage in career education, there is little evidence of any on-going behavioral commitment or instructional priority. Some teacher reluctance to become involved in career education stems from a lack of "how to" information and the paucity of materials available.

Teachers approach abstract and conceptual career education activities with considerable caution and uncertainty. They need immediate reinforcement that learning is occurring. After only a few sessions of career education activities some may ask "What are they getting out of it?" or "What are they learning?" They need achievement based data to measure their efforts with students. They seek specific coverage of information. They drill new information to make sure students "know." These teacher attitudes and behaviors reflect the priorities of classroom learning which have been traditionally associated with the educative process. They are not, however, the most appropriate strategies for many components of a career education program.

The selection of teachers to engage in career learning-maturation activities is crucial in getting a program off to a good start. Voluntary participation is desirable. However, many fine teachers need only to be encouraged. Administrators usually know the merits of their teaching staff. They know those teachers who are interested in youth, who seem secure, yet adaptable, in their classroom demeanor, who are open to new and innovative ideas and who are patient and understanding. These are teachers who should be harnessed for participation in the early stages of program development.

Operational Considerations

Getting the program underway is an important step. Careful planning in the initial stages can help to reduce the number of problems as the program develops. Several specific operational matters are discussed in this section.

Staffing. Staffing for the program is a "must" since someone will have to assume responsibility for the organization and administration (or supervision) of the program. The person in charge may be a member of the instructional faculty, the school counselor, or another member of the pupil personnel staff. It is not recommended that this responsibility be added to a member of the administrative-supervisory staff who is already overburdened even if this person is willing to accept the assignment. For best results, a full time, qualified individual should be employed. In some situations, it may be possible to designate a committee of teachers to assume the planning and administrative chores. The person in charge of program development should perform three basic functions: (1) organizing, sequencing and evaluating the activities; (2) obtaining and distributing program materials and utilizing community and regional resources (field trips, speakers); and (3) providing in-service training and consulting assistance.

In-service preparation. Developing teacher competencies to engage in the processes of career learning-maturation is vital. An in-service program should be provided for participating teachers. This program can help them (1) to identify some of their own attitudes that will enhance or inhibit their involvement, (2) to gain a better understanding of the process of career development, and (3) to become familiar with career education materials and practices. Continuous in-service consultation is desirable to help teachers with individual problems and concerns. This is particularly important during the first year of operation. Teacher involvement can be fostered through the consulting role of the program officer. Systematic and regular consultation can help teachers to deal more effectively with the different component activities of the career learning-maturation program. As they become familiar with and adept in using the different strategies in the various component activities, they can extend their involvement to other instructional responsibilities.

Identifying and utilizing community resources. The resources of the local community (or the region) can be a valuable and vital source of significant learning exposures. Opportunities for field trips to local businesses and industries should be established and the various types of work functions in each participating firm should be identified. Liaison work with businesses and industries is important in providing an opportunity for the deaf student to observe other deaf workers engaged in various types of work. Such visits, built around career opportunities for the deaf, not only help the students to identify possible areas of future employment but, more importantly, help them to learn about the specific nature of work orientations and various work functions. It is extremely important that deaf workers in the community be identified. These persons can be valuable resource speakers and can be observed as they function on-the-job. Industrial personnel should be contacted regularly as sources of potential employment for the graduates who seek work upon graduation. These and

other similar activities offer a variety of exposures and experiences that are seldom tapped. These involvements are a significant part of the program. To prepare for their proper utilization requires a good deal of ground work and planning, but the payoff for the program will make these efforts most worthwhile.

Portraying the occupational conditions of the deaf. The occupational conditions of the deaf and the problems they encounter in their daily work are significant in the selection of activities which the school may decide to provide. Their on-the-job difficulties, such as the use of the telephone or participation in group conferences, are significant in their employability and work performance. These realities need to be incorporated in all phases of the school program. They cannot be "hidden;" they must be faced openly. The ingenuity with which deaf workers cope with these situations deserves attention. The discussion of ways to deal with these problems can add much to the deaf worker's repertoire. Deaf workers may need to know as much about "job-tailoring" as they do about the actual duties of a job.

Work opportunities for many deaf individuals have been depressed so that many are "underemployed." Part of this problem rests with deaf workers and their own vocational immaturity. A share of this failure rests with the lack of attention that has been given to career education. A great deal of effort is being directed to expand the vocational horizons and upgrade the aspirational level of deaf youth. These efforts must be accompanied by a program that will upgrade their ability and skill in dealing with the problem of "underemployment." This means alerting deaf youth to their on-the-job difficulties and helping them to learn how to deal more effectively with them.

A small percentage of deaf youth are "unemployable" as a result of poor work attitudes or a lack of motivation. A larger percentage of deaf youth are apt to be unemployable because they lack needed work skills and there are simply no jobs available for which they can qualify. Career development programs can help these young people to view realistically the kinds and standards of work prevalent in their area. This means helping deaf youngsters to assess the work activities and work requirements associated with those jobs which are available to them. They must understand the level of communication essential to their work performance, and they must recognize that the availability of many jobs will be dependent on the communicative skills they can offer. They must know how job activities can be modified making it possible for them to function despite their handicap. They must realize, further, that not all employers will permit the kind of "job-tailoring" which their particular deficiency may require.

THE OBJECTIVES OF CAREER EDUCATION

Some time ago, the importance of a man's work and its pervasive influence was aptly stated by Edwards:

> The most dominant single influence in a man's life is probably his occupation. More than anything else, perhaps, a man's occupation determines his course and his contribution in life .... Indeed, there is no other single characteristic that tells so much about a man and his status--social, intellectual, and economic--as does his occupation. A man's occupation not only tells, for each workday, what he does during one-half of his waking hours, but it indicates, with some degree of accuracy, his manner of life during the other half--the kind of associates he will have, the kind of clothes he will wear, the kind of house he will live in, and even, to some extent, the kind of food he will eat. And, usually, it indicates, in some degree, the cultural level of his family.[6]

Some of what Edwards said over thirty years ago is current. Certainly work is an important part of a person's life--a woman's as well as a man's. But today's world is different and work, while remaining significant, may not offer all the personal satisfactions nor meet all an individual's needs as it once did. Career education, in the modern sense, may entail looking at several dimensions of a person's life including non-employed hours as well as time on a specified job.

The Need for Career Education

There are three basic concerns that highlight the need for career education as a vital ingredient in the instructional program of the school.

1. The meaning and significance of work in the life of people is changing. Work commitments and the work ethic in American society are being re-examined and reconstituted. Changes in the way people work and in the amount of time they spend working are contributing to the erosion of traditional beliefs about the importance of work and to the re-examination of values fundamental to the work ethic.

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[6] Alba M. Edwards, Comparative Occupation Statistics for the United States: 1870-1940, Sixteenth Census of the United States, 1940 (Washington, D.C.) Government Printing Office, 1943, p. xi.

2. Our knowledge and understanding about the nature of career learning-maturation has not been fully implemented in the educative process. We have consistently adhered to a limited model which emphasizes only the matching of talents (what an individual likes and can do) and tasks (the work opportunities available to him). There are many outdated attitudes that accompany this approach. Chief among these older attitudes are the beliefs associated with the notion that individuals "pick an occupation" by deciding what job they want to have, preparing for it and, for the remainder of their life, advancing in it. The idea of vocational involvement as a continuous, dynamic, evolving, developmental process is yet to be understood by those workers in our schools who are in a position to implement it. Career education programs must seek to help teachers and others who work with students to become more attuned to the developmental aspects of career evolvement.

3 The potential for the occupational involvement of deaf people covers a wide range of job opportunities The opportunities for employment, however, must take into account the individual's skill in both the receptive and expressive domains of communication. Occupational exploration, like other aspects of deaf education, must be a more individualized experience. Also, the components of career education activities should help educators and employers of the deaf, as well as deaf students, to examine the possibilities for modifying ("tailoring") the work routines in a job to accommodate deaf workers. The benefits of community participation in career education activities include the possible extension of job opportunities for the deaf as well as the expansion of the occupational horizons of the deaf student.

Newer Concepts about Career Development

While there is much about career development that we do not know, we must begin to make use of that information which we do have. We have enough information to establish guidelines which can be used to chart new directions. The following concepts represent some theoretical views that are consistently supported in studies of occupations and occupational life.

1. Vocational development is a process extending over a long period of time--perhaps a lifetime.

2. Vocational development is concerned with those physiological, psychological, sociological, and economic forces impinging on the decisions of an individual making both internal (personal) and external (environmental) considerations necessary and significant.

3. Vocational development consists of a series of decisions which eventuate, over a period of time, in occupational involvement.

4. Vocational development is experiential in nature, necessitating trial-exploratory behavior of a real and simulated nature allowing individuals to explore further their self and their self-in-vocation.

5. Vocational development is the progressive and compromising process of achieving self-identity in work roles.[7]

The Objectives

Crites, in elaborating a model of vocational maturity, identifies several attitudes and competencies that are associated with career development.[8] These have been converted to objectives for the program.

Objectives concerning the attitudes of students. The objectives focus on the development of student behaviors related to the following attitudes about the career choice process.

1. To help students identify and explore the attitudes that reflect their readiness and responsibility for involvement in the career choice process (involvement in the career choice process).

2. To foster the development of concepts and ideas concerning how career decisions evolve over a lifetime (conceptions of the career choice process).

3. To help students understand the nature of their responsibility for choices related to career evolvement and the need for them to make their own choices independently (independence in career decision making).

4. To help students examine (awareness, exploration, assessment) sociological and economic factors of vocational development (needs, values, interests, abilities, aspirations, health, pressures, physical attributes, temperament, life goals, behaviors) as these relate to their own self and self-in-situation (preference for vocational choice factors).

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7 Harold L. Munson, Foundations of Developmental Guidance. Boston: Allyn and Bacon, 1971, p. 322.

8 John O. Crites, Vocational Psychology. New York: McGraw-Hill, 1969, p. 204.

5. To help students examine (awareness, exploration, assessment) their attitudes associated with the significance and meaning of work and leisure as these influence their own work motivations, work satisfactions, work behavior and life style (orientation toward work and leisure).

Objectives concerning the competencies of students. Competencies refer to the ability of students to process whatever knowledge they have available and to manipulate this information in decision making and problem solving situations. These objectives focus on the cognitive elements of collecting, analyzing, and synthesizing information in the decision making aspects of the career choice process.

1. To help students assimilate knowledge of self and reality by relating the factors of their own being to the world in which they live (integrating knowledge of self and environment).

2. To help students discover and explore occupational and educational opportunities (getting and using occupational and educational information).

3. To help students identify and deal with conflicts among possible alternatives (problem solving in conflict situations when an individual is forced to choose a course of action from alternatives with opposing results as differentiated from a choice situation when an individual has the option of selecting one of several desirable alternatives).

4. To help students examine and establish (or select) future goals.

5. To help students develop plans for implementing their goals (including information to carry out, modify or reformulate plans as necessary).

The specific behaviors associated with each of these objectives are identified in the career education materials for each program component activity.

PROGRAM ACTIVITIES AND MATERIALS

The career education activities encompassed by the five components in this program model are geared primarily for deaf students 14 years and older. The program can begin with students 12-14 years old if (1) they have the interest and intellectual capacity to grasp the concepts and (2) the teachers are flexible, able to deal with ambiguity, concept oriented rather than fact dominated, and willing to deal with career and self oriented activities. In some instances the program can be introduced to selected 10-12 year old students. The criteria cited above for the 12-14 age range should be used to determine the feasibility of initiating selected career education for the 10-12 age group.

Some General Program Considerations

1. The vocabulary of work, work roles and work functions is a necessary part of career education. Just as knowing about impervious rock, the capital of a country or the definition of a peninsula are important in academic study, terms like literary, prestige, data or manual dexterity are important to career education.

2. This career education model is developmental. It is geared to continual, on-going explorations. It provides for new exposures aimed at discovery and awareness. It allows for repeated but not necessarily repetitious learning episodes aimed at reinforcement and concept expansion. It is intended that the various activities become an integral part of the classroom experience. Career education, to be effective, must be a vital element of the total school program.

3. The strategy undergirding the different components is essentially integrative. The program is established within the total educational experience considering the faculty and facilities available. Each component activity lends itself to time blocks which are best determined in each local school. While the component activities can be separately organized and sequenced, most of the activities can be integrated into the academic and vocational offerings of the school. Program coordinators should be attuned to these opportunities and working continually with the faculty for the integration of career education and subject matter learnings.

4. Since members of the faculty may be involved in one or several career education activities, their contribution may be more meaningful if they can relate their participation to the general objectives of the career education effort and to the learnings associated with other component materials and activities. For example, a teacher

who elects to use the career briefs in a subject matter class should be familiar with the work function concepts as these are developed through the work function slide series or the Data-People-Things Puzzle game. Teachers should be aware that some vocabulary and career terms are introduced in the several different program strategies.

Scheduling the Program Materials

Each of the five program components can be scheduled independently. However, it is important to keep the relationship among these various activities as a primary consideration in planning and arranging for the different career education experiences. The program schedule which is suggested should be considered tentative and flexible. It can be easily modified to accommodate the particular needs of the student body it serves.

Vocational gaming. The Career Insight and Self Awareness Gaming (CISAG) program is used to implement this component. The CISAG program consists of six vocational game-like interactions which engage students in self exploration and self assessment. The six games provide for the deliberate involvement of participants in the discovery, exploration and assessment of their individual preferences and feelings with reference to their interests, life goals, abilities and work function behaviors. Specific information concerning the use and effective age ranges for the different games are provided in A Supplemental Guide to CISAG for Teachers of Deaf Students.

A suggested sequence for using the CISAG games in the six years of secondary education is provided below. Except for the Interests Continuum and Interests Triangle games (which should be scheduled continguously in grades 9 and 11), students can be involved with the different games simultaneously.

GAME	GRADE LEVELS					
	7	8	9	10	11	12
Life Goals	X*			X		X
Interests Continuum	X		X		X	
Life Situations	X		X		X	
How I See My Abilities		X		X		X
Interests Triangle		X	X**		X**	
Data-People-Things Puzzle		X		X		X

* omit Life Goals Comparison

** plan Interests Triangle to follow Interests Continuum

Learning about the work functions. The work functions slide set schedule provides for the introduction of all the work functions associated with one major work orientation each year. Thus, data-oriented work functions are introduced in grade 7, people-oriented work functions in grade 8 and things-oriented work functions in grade 9. The "X" on the chart indicates the recommended grade level in which to use the slide set; the number following the "X" represents the suggested sequencing for the initial student exposure. While the chart provides a suggested sequence for a second learning exposure in grades 10-12, it does not recommend any specific order for their presentation.

WORK FUNCTION SLIDE SETS	GRADE LEVELS 7	8	9	10	11	12
DATA						
Synthesizing	X-7			X		
Coordinating	X-6			X		
Analyzing	X-5			X		
Compiling	X-4			X		
Computing	X-3			X		
Copying	X-2			X		
Comparing	X-1			X		
PEOPLE						
Advising		X-6				X
Negotiating		X-8				X
Instructing		X-1				X
Supervising		X-7				X
Amusing		X-2				X
Persuading		X-5				X
Speaking-Signaling		X-4				X
Serving		X-3				X
THINGS						
Setting-Up			X-4		X	
Precision Working			X-2		X	
Operating-Controlling			X-5		X	
Driving-Operating			X-1		X	
Manipulating			X-7		X	
Tending			X-8		X	
Feeding-Offbearing			X-6		X	
Handling			X-4		X	

This component utilizes a series of 23 slide sets to portray the different work functions which have been identified by the United States Department of Labor and described in the Dictionary of Occupational Titles (Volumes I and II). The slide sets introduce the student to twenty-three work functions as they are related to work associated with data, people and things. Each slide set depicts a variety of tasks which are a part of the particular work functions under study. The slides emphasize these work tasks as they are encountered in home, school and community experiences as well as in different occupations. By relating the work function to the present home, school and community experiences of students, the slide set provides a "here and now" element to the learner's understanding of work function concepts.

Clarifying work values and attitudes. Helping students to look at the significance of work in their lives involves providing opportunities for them to examine and think about attitudes and values which are associated with work and work situations. As students are exposed to a variety of work habits and attitudes about work, work conditions and locales, worker motivations and dissatisfactions, and the economics of work, and as they are allowed to think about and react to them, their own self and work understandings are extended. The booklet, Clarifying Work Values: Strategies for Career Education, is used to implement four major areas of work values clarification. The chart below suggests appropriate grade levels for scheduling the different value areas which the students will consider.

VALUE/ATTITUDE AREAS	GRADE LEVELS 7	8	9	10	11	12
Area 1 Work Habits	X		X		X	X
Area 2 Working Conditions		X		X		X
Area 3 Work Motivations and Dissatisfactions			X		X	X
Area 4 Economics of Work		X		X	X	X

Using career information. The Career Briefs in the Education of the Deaf Series consists of forty pamphlets which survey a variety of jobs representing the nine major occupational categories. The career briefs were developed to provide accurate, current information about existing career opportunities for the deaf. Since most occupational information has been prepared for hearing students, the briefs were specifically designed to meet the informational needs of deaf students. They are written in concise, familiar language infusing vocational gaming (CISAG) terms and work function concepts as these have been introduced and used in the other program component activities.

The career brief series can be used at any grade level where teachers feel their students can read and understand the information. The following guidelines for integrating the briefs with classroom and other career education activities should be hlepful.

1. A career brief could be used as a source of supplemental information in connection with field trip or work function slide set exposures.

2. Career briefs could be used as part of an independent classroom experience or in conjunction with other subject matter units of study. Appropriate subject matter areas for introducing the various career briefs are identified below:

SCIENCE
Engineering (25)
Farming (40)
Geographer (27)
Geologist (28)
Landscape Architects and Gardeners (24)
Medical Laboratory Workers (34)
Oceanographer (38)
Physicist (10)

LANGUAGE ARTS
Guards and Watchmen (21)
Housekeeper, Maid and Janitor (39)
Laborer (23)
Librarian (3)
Medical Record Librarian (35)
School Counselor (7)
Theater Arts: Performing (30)

ART
Drafting (1)
Theater Arts: Supporting (31)

SOCIAL STUDIES
Farming (40)
Geographer (27)
Guards and Watchmen (21)
Housekeeper, Maid and Janitor (39)
Laborer (23)
Systems Analyst (32)
Theater Arts: Performing (30)
Truck Driver (18)

HOME ECONOMICS
Barber and Beautician (37)
Dietitian (19)
Housekeeper, Maid and Janitor (39)
Landscape Architects and Gardeners (24)
Meat Cutter (22)

BUSINESS EDUCATION
Accountant (11)
Keypunch Operator (2)
Typist (9)

INDUSTRIAL ARTS

Mechanical drawing
Drafting (1)
Surveyor (36)

General shop
Furniture Upholsterer (4)
Laborer (23)

Printing
Bindery Workers (15)
Composing Room Occupations (16)
Electrotypers and Stereotypers (13)
Lithographic Occupations (14)
Photoengravers (12)

Machine trades
Automobile and Aircraft Mechanic (29)
Core Maker (6)
Machinist (8)
Tool and Die Maker (5)

Bench trades
Furniture Upholsterer (4)

Construction (structural) trades
Mason and Plasterer (26)
Plumbers and Pipefitters (17)
Welder (20)

MATHEMATICS
Accountant (11)
Computer Programer (33)
Engineering (25)
Surveyor (36)
Systems Analyst (32)

DRIVER EDUCATION
Truck Driver (18)

Making field trips. Helping students to learn about different work tasks and activities through on-the-job observation is the main focus of this component. Learning About Work, a student field trip manual, provides opportunities for deaf learners to observe and classify work experiences according to the type of work function performed at home, in school, and in the community as well as in business or industry. It is used to facilitate student observation as they visit a variety of places where different work activities can be viewed. Through the field trip, it is expected that students will have a chance to observe and identify different types of work functions. It offers a concrete involvement with work and work tasks which can be effective in helping to build the understandings necessary for grasping the meaning and significance of work and for relating these understandings to their own interests, abilities, work preferences and life goals. Field trip activities should be attuned to the other career education exposures provided in the program. Field trips should be organized to support and extend these learnings. By coordinating the field trips with the other activities of the program, students will have an opportunity to reinforce conceptual understanding with visual observations.

Organizing the Program Activities

There are several characteristics of a well organized career education program. It is (1) on-going, (2) coordinated, (3) developmental, (4) integrated and (5) comprehensive. In deciding how to organize the different components of the program model, it is important to keep these characteristics in mind.

There are three general approaches to organizing the career education program: (1) the special career education class approach, (2) the integrated (or subject matters) approach, and (3) the individual teacher approach.

The special career education class. This approach provides special career education classes at each grade level (or at specified grade levels) in a school's program of course offerings. Specific class periods are established for involving students in career education activities. These classes may meet daily or once or twice a week. Scheduling the classes on a less frequent basis (bi-weekly or monthly), would limit the continuity of student involvement and the scope of activities that can be offered. These limitations contribute to a reduction in the level of student interest and involvement. Therefore, to provide a dynamic and continuous program it is necessary to establish these classes as a regularly scheduled part of the school curriculum.

Some schools may elect to offer career education as a regular offering each year. Others may elect to offer career education at selected times throughout the six years of secondary education. The developmental nature of career learning-maturation may suffer if this approach results in a few highly concentrated periods of involvement rather than extended, continued exposures over longer periods of time.

It is essential to insure that all students have an opportunity to participate in the career education classes. When the schedule of classes is established each year, provisions for student assignments to career education should be coordinated so that no one misses the sequence. Also at this time, it is essential to consider the assignment of teachers to the career education classes. In some schools, one or two teachers may offer these classes at different times and at different grade levels. In other schools, a small group of teachers at each grade level are responsible for these classes.

The integrated approach. Taking advantage of opportunities for infusing career education into the topics of the academic or vocational classroom represents the core of the integrated approach. Planning specific career education activities and integrating them into the curriculum is a task of considerable magnitude. An effective job requires effort, patience, and sensitivity to the career planning motivations of adolescents; an understanding of the objectives of secondary education and their relationship to career education; thorough knowledge of the curriculum in an instructional area; the desire to help students in self-appraisal and career decision making and time to draw up plans which

implement all these considerations. This approach relies heavily on teacher participation. Unless the classroom teacher is willing and ready to be involved, the integration of career education and subject matter instruction cannot occur. The teacher must be concerned about the individual's growth and maturation in the career development process and able to accept some responsibility for providing learning exposures that can and will facilitate it. Administrators must be willing to give recognition to those teachers and their efforts.

A systematic approach to integrating career education into the curriculum is essential if the school wants to ensure adequate coverage of appropriate and worthwhile activities. Teachers must identify the program components (or areas of program components) which they will cover in their classes. In developing this approach, the schedules for sequencing the different program materials should be helpful. Teachers of various subjects at all grade levels can choose appropriate activities from among those that are recommended with the help of someone to coordinate their planning. In accommodating teacher choices, it is important to remember that the schedules for sequencing the program materials are suggestive and not prescriptive.

The individual teacher approach. This approach is very open to individual teacher interests and leaves the choice and/or the nature of their involvement in the different career education components to each individual's preference. While this approach usually requires many sacrifices in the planning and sequencing of the program, it does encourage voluntary teacher participation.

Some of the following classroom areas of opportunity for career guidance can be utilized in helping teachers to identify when and how to offer career education experiences.

1. Teachers can assist students in exploring their work habits and study skills both in relation to the particular skills and techniques necessary for achievement in a given subject matter area and in acquiring the knowledge, understanding, skills and techniques essential in the daily task of working efficiently and effectively. Values clarification strategies offer many opportunities to help students develop and improve their habits of working and to explore and clarify some of their existing work values and attitudes.

2. Appraising one's involvement in a subject can be a meaningful activity. Teachers can assist students in assessing their interest and achievements in a subject, in developing new interests or in extending existing areas of interest. Through learning to assess their strengths and weaknesses in a particular subject, young people can be helped to gain knowledge and understanding of their abilities and aptitudes. Effective feedback to students in appraising

their progress in a course of study extends beyond issuing grades periodically. Teachers should help students relate their progress in all areas of a subject to their past achievement, present status, and future plans.

3. All areas of study offer possibilities for increasing student insights into the meaning and purpose of life, for helping them think about their pattern of life (life style), and for assisting them in thinking about and evolving their life goals. Students can explore various life goals, such as service, success, adventure, family life, wealth in relation to different subject matter areas. Explorations such as these can help students to examine and assess the social and psychological factors that influence goal determination. The Life Goals game can be helpful to some teachers in developing this area of opportunity.

4. Career exploration may involve studying the world of work and the many different career opportunities it affords, or it may be limited to studying only those job opportunities and requirements that are related to a subject matter area. Teachers will find the career brief series and other career information helpful in exploring the occupational implications of a particular subject. Some teachers may wish to develop a "careers" unit which would expose students to divisions or groups of occupations, the structure of the world of work, or occupational trends and developments in the subject matter field.

5. Students often have to take a great deal on faith, since much of the transfer value of a subject is beyond their present experience and ability to comprehend. Teachers have an opportunity to motivate students to much higher levels of accomplishment by carefully and realistically demonstrating the work functions that are utilized in their course of study. For example, in math courses, the computing work function can be emphasized. In science courses, the analyzing and synthesizing work functions can be highlighted. In construction trades, machine shop or bench trades courses, the manipulating, precision working and operating-controlling work functions can be demonstrated. By relating these curricular experiences to the way people work, students will have various opportunities to relate the objectives of a course to their own plans, preferences and goals.

6. Many students find their greatest satisfaction and personal meaning through satisfying and worthwhile community, home or leisure time endeavors. By encouraging teachers to explore the content

of their courses for relationships to extracurricular and community activities, they can find new and different learning experiences that can enhance student participation in the course, facilitate self awareness and self assessment, and suggest new directions or possibilities for student exploration and involvement.

PART II

A CAREER EDUCATION IN-SERVICE PROGRAM

ORGANIZING THE IN-SERVICE PROGRAM

Part II consists of ten two-hour in-service training sessions (20 hours) to prepare school personnel to engage in the career education program model described in Part I and to use the classroom materials which have been developed to implement it. This section provides basic information which can be helpful to leaders in planning and conducting the in-service sessions. The activities in each session have been sequenced for a two-hour period. The materials needed for each session are included in the Appendix with the exception of the two video tapes and the four slide-tape sets.

Some Initial Questions

Assuming that prior questions and considerations relative to administrative and curricular priorities have been discussed, basic questions concerning who should plan and conduct the in-service program, who should participate, when the program should be offered and what kind of facilities should be made available must be raised. Some guidelines to assist in dealing with these questions are in the following sections.

Who should be an in-service leader? The choice of a leader for the in-service program is a primary consideration once the determination to embark on a career education program has been made. Leaders should have some basic preparation to acquaint them with the program model and materials and with the nature of the in-service program. It is anticipated that such leadership training programs will be offered by a few selected institutions. Also, schools for the deaf with experienced career education in-service consultants will be an additional resource available to schools who are ready to institute new programs. Schools wishing to embark on a career education program should identify potential leaders from their school staff and seek information from institutions where these leaders may receive training as in-service program leaders.

Who should participate? Although it is most desirable to have the entire faculty of a school staff attuned to the needs and objectives of career education, it is more practical to offer the in-service program to those members of the school staff who are willing and interested in becoming involved. By making the program a voluntary effort, the likelihood of a successful in-service program will be enhanced. Furthermore, and perhaps more importantly, interested and eager teachers are more apt to become more intensely involved in their career education activities, thus improving the chances of enrolling more teachers in successive years as the program proves to be successful and popular. Also, student enthusiasm and learning is directly dependent on the attitudes of their teachers. Volunteer participants will generally be the most enthusiastic advocates of an innovative effort to change curricula and teaching behavior.

When should the program be offered? The program is sufficiently flexible to utilize a variety of possible approaches. Some schools have elected to offer an intensive program concentrating a series of sessions in a short period of time. Using this approach, it is possible to offer all ten sessions over the span of a few days (3 days) or weeks. Another approach involves offering one two-hour session on a weekly or bi-weekly basis taking a semester or more to introduce the entire program. A third possibility involves a series of weekly one-hour sessions. If this latter approach seems most desirable, the in-service leaders should examine each session carefully to determine the best point at which to divide the two-hour program. A fourth approach can be evolved by combining these alternatives. For example, a school may wish to offer the first three sessions over a one or two day period, scheduling the remaining sessions on a weekly or bi-weekly basis.

Whatever approach is utilized, it is important to keep in mind that Session Ten is recommended to follow Session Nine after a six to eight week time lapse. The last session is a reviewing, reporting, and sharing session. It provides an opportunity for teachers to share experiences and problems which necessitates scheduling this session after teachers have used the materials and tried different ways of adapting the strategies to their own style of teaching and tested the materials with their particular deaf learners.

What facilities should be available? It is important to select rooms which can be conveniently arranged to provide for the various activities which are a part of the different in-service sessions. Since the sessions utilize video tape and slide-tape presentations, it is essential to make sure that the necessary equipment and controlled lighting will be available. Since small group gaming and discussion sessions are a part of several sessions, it will be necessary to choose a location where such additional meeting space can be conveniently reached.

Insofar as possible, the atmosphere should be informal. Movable, comfortable chairs, provisions for smokers so they don't annoy non-smokers, help to establish desirable learning conditions. It is essential that all the participants have a full view of the leader and the interpreter. For those sessions using audio-visual presentations, being able to see and read material is particularly important. If a large group of in-service participants (over 45 people) is being accommodated, a microphone system should be considered.

In-Service Program Procedures

There are nine consecutive sessions which should be planned on a regular schedule. The tenth session should be planned to be held six to eight weeks after the ninth session with the intervening time being used by participants to implement the career education materials with their students.

Timing the sessions. The beginning of each session is noted marginally as "0:00" in the in-service outline of session procedures. The time for initiating each new session activity will be noted in the margin consistently throughout the outline. The total time needed for each single activity is given in parentheses where the directions for the procedure are given. If a procedure is broken into several component activities, the required time for each activity is also noted in parentheses.

It is strongly advised that the in-service leader observe these recommended times. Unless participant response or scheduling demands warrant an extension, starting and dismissal times for the sessions should be observed. This may be dependent on the time of day when the in-service program is being conducted. Many people feel negatively if they are kept past the announced adjournment time. However, if participant enthusiasm during the end of session feedback seems to make it appropriate to continue, the leader may wish to extend the session. Adhering to a timed schedule makes it necessary for the leader to control each phase of the session carefully.

Since there is considerable flexibility in the two-hour format, the leader can adapt the sessions to fit any prearranged in-service schedule. When this is necessary, the activities of the sessions may be scheduled out of content as long as the general order of instruction remains consistent.

Breaks. It is recommended that a break be provided in each session. This is an optional decision for the group leader. The provision of refreshments generally keeps the mood and mental alertness of the participants at an optimum level. Less time will be lost if they are directed to bring their food or drinks back to their seats so that the program may continue.

Activities involving small group leaders. The following sessions require the use of one or two people as assistants to the leader for small group activities: Session 2 (CISAG gaming); Session 4 (practice in using the D.O.T.); Session 5 (Data-People-Things Puzzle gaming); Session 9 (values clarification strategies). The assistant leaders should be identified and trained by the in-service leader prior to the session. The small group leaders should practice with the leader until their skill is judged adequate. Merely reading over the session procedures is not adequate training; they must have hands-on experience with the materials which they will be using prior to the session in which they will be assisting. It is recommended that the same small group leaders be used for all sessions requiring such assistance if possible. It is desirable that these people be participants in the program who have expressed enthusiasm over using career education materials with their students. Some may have already initiated use of the materials so that they may base their instruction on actual experiences with deaf learners.

The choice of facilities where the small group activities are to be held should include a consideration for the size of the group (preferably fewer than 10), the need for privacy and freedom from distractions, and an informal atmosphere and comfortable seating. It is recommended that the small groups meet in separate rooms.

Activities involving panel members. The following sessions require the use of resource persons as panel members: Session 7 (presentations by representatives from business and industry); Session 10 (school faculty in-service participants reporting on experiences with career education components).

The representatives from industry should be identified and contacted about participation in the panel discussion several weeks prior to the scheduled date for Session Seven. These men and women should be encouraged to share their experiences with and/or about deaf employees. For Session Ten, one or more teachers who are using a specific career education activity should be identified and invited to prepare a brief description of their classes. Leaders should seek these panel members out during the six to eight week interval between Sessions Nine and Ten.

In-Service Program Materials

A variety of materials are utilized throughout the ten sessions. Essentially these materials consist of audio-visual materials, commercial books and pamphlets, career education program materials (slide sets, career briefs, teacher manuals and student workbooks) as well as worksheets and informational materials which are distributed at specific in-service sessions.

Slide-tape sets. There are four-slide-tape presentations used in the following sessions: Session 1 ("Career Development for Deaf Students--An Overview of a Program"); Session 4 ("Learning to use the Dictionary of Occupational Titles"); Session 5 ("Work Functions and Everyday Life"); and Session 8 ("Developing and Using Career Briefs"). Since these sessions utilize slide-tape set presentations, a carousel projector, screen and cassette tape recorder will be necessary.

The taped narration accompanying each slide set provides two different speeds. Side One of the audio cassette provides a normally-paced narration which can be used if no interpreter is needed. This side is used as the basis for the time allotted in the procedures for showing the slide-tape presentation. Side Two of the audio cassette provides a slow-paced narration which will allow a manual interpreter to sign the narration at a comfortable speed. Scripts for the slide-tape sets are provided in the Appendices for Sessions 1, 4, 5 and 8.

Video tapes. Video training tapes are used in Session 3 ("Career Insights and Self Awareness Gaming (CISAG) Program Communication Techniques") and Session 9 ("Clarifying Work Attitudes and Values"). The student game players in the classroom episodes and the narrator use both voice and manual communication so that both deaf and hearing participants in the in-service program will be able to view the tapes without interpretation.

Scripts for the video tapes are provided in the Appendices for Sessions 3 and 9. If the group leader feels that the participants would benefit from having access to the script for later reference and study, copies may be distributed. The video training tapes which are supplied for Sessions 3 and 9 will require a $\frac{1}{2}$" EIAJ format video tape recorder (e.g. Sony Rover Video Recorder or Sony Model 3600). It is strongly recommended that both the video tape and slide-tape presentations be previewed by the group leader. The content will then be familiar during the session, and the adequacy of the equipment needed to show the presentations can be verified.

Career education materials. The career education materials which are used in each of the component activities should be obtained prior to the beginning of the in-service program. It is anticipated that these materials will be available for purchase. The source and availability of these materials is, at present, undetermined. The Career Insights and Self Awareness Games (CISAG) and The Supplemental Guide to the Career Insights and Self Awareness Games for Teachers of Deaf Students are available from the various regional offices of Houghton Mifflin Company.

References. There are several reference books which must be used by the team leader in preparing for each session and by the participants during the session. The following reference materials should be secured before the in-service program begins.

Session 4

Dictionary of Occupational Titles, "Definitions of Titles" (Volume I) and "Occupational Classification" (Volume II). These are available from the Government Printing Office, Washington, D.C. 20402.

Career Opportunities for the Deaf and "A Survey of Career Opportunities for the Deaf" (a research report). These are available from H. L. Munson, Center for the Study of Helping Services, University of Rochester, Rochester, New York 14627.

Session 8

Occupational Outlook Handbook (Government Printing Office).

Encyclopedia of Careers (J.G. Ferguson Publishing Company)

Session 9

Clarifying Values Through Subject Matter (Winston Press).

Teaching and Values: Working with Values in the Classroom (Charles E. Merrill Publishing Co.).

Values Clarification (Hart Publishing Co.).

Other excellent sources of information exist which the in-service leader may want to read in preparation for teaching the program are listed below:

Bowe, F. and M. Sternberg, I'm Deaf Too, National Association of the Deaf, Silver Spring, Maryland.

Lemonds, C., and P. Moss, Choosing A Job, Southern Regional Media Center, U. of Tennessee, Knoxville, Tennessee.

Crammette, A. B., Deaf Persons in Professional Employment, Chas. C. Thomas, Springfield, Illinois.

Stuckless, E. Ross, A Guide to College/Career Programs for Deaf Students, National Technical Institute for the Deaf, Rochester, New York 14623.

Career Counseling: New Perspectives for Women and Girls, Business and Professional Women's Foundation, Washington, D.C.

Turkel, S., Working, Pantheon Books (a division of Random House).

Schein, J.D. and Marcus T. Delk, The Deaf Population of the U.S., National Association of the Deaf, Silver Spring, Maryland.

Appendix materials. Each in-service session in Part II contains an appendix which provides a master copy of materials to be used by participants in that session of the program. These can be reproduced for distribution at the appropriate session. The objectives for each session appear in primary type so that the list may be copied as a transparency for viewing on an overhead projector or for distribution to each participant.

Feedback and Evaluation

At the end of each session the participants should be allowed an opportunity to express their concerns regarding the content or procedures covered in the session. These may be formalized by writing them out and

turning them in to the leader or they may be kept at the informal discussion level. In either case, the leader should pay particular heed to recurrent or widely held concerns so that successive sessions may be modified accordingly.

Session Ten includes an evaluation instrument which consists of the self-rating of each participant on the achievement of the objectives for each session. It is possible for sections of this instrument to be administered session-by-session if the leader feels participants would benefit from more immediate feedback on their learning. Copies of the section covering the objectives of the single session completed should be made for each participant prior to the session.

IN-SERVICE SESSION OUTLINES

SESSION No. 1

EXPLORATIONS IN CAREER EDUCATION

The Rationale

Career education is commonly relegated to the last year or two of high school. During the senior year, there may be a flurry of activity in the principal's or counselor's office to help students plan for further training beyond high school or for finding a suitable job. These career education activities are limited to providing job information when students make specific inquiries.

The developmental approach to career education is based on providing continuous learning experiences throughout the educative process. These experiences are directed at helping students become more fully aware of their own "self" and of the many career opportunities in the world of work.

Several assumptions guide the development of the content in this session.

1. Career education is an on-going, continual, developmental process. It is an important ingredient in the total educative process.

2. Career education is a shared responsibility of all members of the school staff.

3. Career education involves assessment of many factors of "self" and of "self-in-situation" as well as information about careers.

4. Career education involves the provision for pre-planned, sequential and coordinated learning exposures. It is not left to the chance of incidental or sporadic learning.

5. Career education has a content and vocabulary which are essential to the career development process.

Since educators differ widely in their beliefs and attitudes about the nature and process of career education, it is helpful to identify those that are prevalent among members of a school staff. When a new program is being initiated, it is necessary to bring out differences as they contribute to or detract from the success of the program model being introduced.

Objectives

This session is directed toward helping the participants to begin to:

1. identify and clarify their own attitudes and beliefs about career development by sharing them with other participants.

2. think about their own involvement with and concern for the career development of deaf students.

3. explore newer concepts concerning the human aspects of career development (vocational learning-maturation).

4. become familiar with several components of a developmental approach to career education.

Materials Needed

1. List of objectives for Session One (prepare one copy for each participant or make an overhead transparency for group showing). See Appendix A-1.

2. "Attitudes Toward Vocational Development" survey (prepare one copy for each participant). See Appendix A-2.

3. One-half sheet of scrap paper for each participant or large sheet of newsprint for each group to record ideas about career education.

4. Slide-tape set "Career Development for Deaf Students--An Overview of a Program."

5. Script of narration for slide-tape set (optional, but if used, prepare one copy for each participant). See Appendix A-3.

6. Carousel projector, screen and cassette tape recorder to use with slide-tape presentation.

7. Materials representing the five program components for display. Have enough materials available so that all participants can look them over without waiting. Arrange the displays so the participants are not crowded into a small area when viewing them. Group and label materials by component areas.

    a. CISAG Game Leader's Manual and Game Guide (set up at least one game board cloth with materials arranged for a game play).

b. Field Trip Teacher's Manual and Student Workbook Learning About Work (set out 2 or 3 of each).

c. Work Function slide sets and Teacher's Manual (display one set from each of the data, people and things series). It is helpful to have one set-up for viewing on automatic projector.

d. Career Briefs (display one set of 40 briefs). You may wish to display these by tacking copies from one set to a large bulletin board and using a second set for table display where individuals can engage in "hands on" perusal.

e. Clarifying Work Values: Strategies for Career Education (display 2 or 3 copies). You may wish to post copies of the booklet on a large bulletin board in such a fashion as to draw attention to each of the work values areas covered in the booklet.

8. List of program components and description of each (prepare one copy for each participant). See Appendix A-4.

Procedures

Since this will be the first in-service session, you should allow an additional 5-10 minutes for organizational matters. This will vary according to your group or school needs. The session procedures do not include whatever time you need to accomplish these goals.

0:00 INTRODUCE the objectives of the first session (10 minutes).

The list of objectives should be distributed with the announcement that participants may ask questions about any specific objective at the end of the session. These objectives serve as advance organizers for the procedures and concepts which are to follow. In lieu of distributing a copy of the objectives to each participant, the list can be prepared for viewing on an overhead projector, accompanied by a brief verbal explanation of each objective listed.

0:10 ADMINISTER the "Attitudes Toward Vocational Development" survey (15 minutes). This is not a timed instrument. Everyone should work individually and should be able to finish it in less than 15 minutes.

a. Have the participants complete the survey and sign their names.

b. Collect the surveys when they are completed and retain them for scoring in Session Ten.

0:25 EXPLORE participant ideas and feelings about career education (25 minutes). This activity may be seen as an extension of some of the thoughts generated by the "Attitudes Toward Vocational Development" survey. The ideas and feelings which will be explored should be as specific to your school situation as possible.

a. Participants should move to small groups (10-15 minutes). You may wish to assign the participants to groups randomly or by role (e.g. vocational teachers, counselors, intermediate teachers, secondary teachers, administrators or dormitory advisors). Make sure each group has a leader and a recorder.

(1) Participants should brainstorm all ideas, both practical and impractical for what they feel they, as educators, should be doing to help the career development of their deaf students. Have a recorder in each group write down all suggestions so they can be shared in the large group later.

(2) Participants should identify and list the career education activities they are doing in their program or classes. Have someone record all the activities for total group sharing.

b. Have participants share and discuss their responses to the questions in the remaining time (10 minutes). The recorders for each group should summarize the ideas for their groups.

(1) The discussion should evoke a number of ideas that can be related to the several assumptions cited in "The Rationale" for this session. You can reflect or clarify participant contributions by relating them to these assumptions or to others which are appropriate to the program.

(2) The discussion will help to reveal a variety of staff feelings and attitudes about career education. You may wish to reflect and clarify these feelings so that all participants can become involved in identifying their own attitudes or beliefs in relation to those stated or to those in the "Attitudes Toward Vocational Development" survey.

(3) You may wish to summarize briefly the ideas and attitudes expressed.

Note to Leader

The discussion can be used to introduce the next activity (the slide-tape set). It is anticipated that the discussion will provoke ideas or reactions that are dealt with in the slide-tape set which follows. You should be alert to identifying those ideas that are traditional as well as those newer concepts that are promoted in the program model. All ideas and reactions should be accepted since they represent the perceptions of the participants. By accepting participant perceptions, all members of the in-service group can be helped to identify their own attitudes and beliefs about career development (objective #2). These contributions can be related to the newer concepts concerning the human aspects of career development (objective #3). These newer concepts will be introduced in the slide-tape set.

0:50 BREAK (optional). If you do have a break, you may wish to have the participants bring coffee back to their seats while viewing the slide-tape presentation.

1:00 DISTRIBUTE the script of the slide-tape set narration (optional).

Show the slide-tape set "Career Development for Deaf Students--An Overview of a Program" (35 minutes). Use Side One of the cassette tape for normally-paced narration. Use Side Two of the cassette tape for slower-paced narration to allow for manual interpretation. Ask participants to hold all questions for the discussion period which follows the viewing.

1:35 **DISCUSS the slide-tape set (15 minutes).**

Encourage participant reactions to or questions about the program model or the materials that are used to implement it. If necessary, the following questions or ideas can be raised for discussion.

(1) What new ideas occurred to you during your viewing of the program?

(2) What ideas in this program contradict some of your views about career education?

(3) In what way are you engaged in some of these activities now?

(4) What materials in this program do you think you could use in your classroom?

1:50 REVIEW program materials (10 minutes).

a. Distribute "Description of Career Education Program Components" and encourage participants to read the material prior to Session Two.

b. Point out the different displays you have arranged for each of the component materials. It is advisable to indicate at this time that the remaining in-service sessions will be directed specifically toward understanding and using the materials associated with each component.

c. Encourage the participants to visit each of the displays.

d. Since it is hoped that the staff participants will spend as much time as they wish with this "hands on" experience, you should be available to answer individual or small group questions that may arise at the various display settings.

Note to Leader

Having this scheduled as an end of session activity will help you to assess participant interest and reaction by the nature and length of their involvement in looking at and reviewing the materials you have made available.

2:00 SEEK end of session feedback. Refer participants to original list of session objectives. Elicit questions and other feedback.

SESSION No. 2

CAREER INSIGHTS AND SELF AWARENESS GAMING

The Rationale

The importance of self understanding in career decision making has been recognized for a long time. Frank Parsons, one of the pioneers of the guidance movement, developed an elaborate system for helping youth to examine their talents. Over the years, especially with the advent of interest inventories and ability tests, other important aspects of "self" become secondary considerations. In most career education programs today, the focus is on the identification of interests and abilities and little attention, if any, is directed toward values, needs, pressures, attitudes or life goals. The evaluation of interests and abilities is based to a great extent on information from tests and other sources of information external to the student. We need to be sure that students are aware of all the important psychological-physiological factors in career choice. Career education programs should provide opportunities for students to examine and assess these factors.

This session is directed toward helping participants to examine some of the factors of "self" to which students should be exposed as a part of their career education. The Career Insights and Self Awareness Gaming (CISAG) program has been developed to provide a structured experiencing of these necessary "self-exposures." It affords students an opportunity to engage in self examination. It insures that they have an opportunity to learn about facets of behavior about which they may not have known or thought heretofore.

The Career Insights and Self Awareness Gaming (CISAG) program is based on several theoretical constructs. These are discussed in some detail in the CISAG Game Leader's Manual (pp. 3-5). Participants will be introduced to the CISAG program and, in the course of working with these materials, to constructs which evolve from thinking about career education as a process involving internal (as well as external) considerations, decision-making and compromising activities based on day-to-day experiences. In becoming familiar with the CISAG materials, the participants should begin to find the "here and now" quality of a developmental approach to career education in place of a totally future-oriented program.

Objectives

This session is directed toward helping the participants to begin to:

1. become acquainted with the following CISAG materials for (1) Interests Continuum, (2) Life Goals, (3) Life Situations, (4) How I See My Abilities and (5) Interests Triangle. (Note that the Data-People-Things Puzzle game is introduced in Session Five).

2. consider a wider range of internal factors associated with career evolvement (needs, values, aspirations, motivations, goals, pressures, and aptitudes).

3. differentiate between the internal aspects of "self" factors and the external nature of world-of-work opportunities in vocational learning maturation.

Materials Needed

1. List of objectives for Session Two (prepare one copy for each participant or make an overhead transparency for group showing). See Appendix B-1.

2. Career Insights and Self Awareness Gaming Materials (five game sets). In this session, you will use the game pieces and one game board cloth for the following five games.

   a. Interests Continuum

   b. Life Goals

   c. Life Situations

   d Interests Triangle

   e. How I See My Abilities

3. "Summary of the CISAG Program" (prepare a copy for each participant). See Appendix B-2.

4. Overhead transparencies for pp. 3-6 of Game Leader's Manual for group showing (optional).

Space and Personnel Needed

1. Extra rooms (or space) for each sub-group gaming session.

2. For sub-group gaming, 2 or 3 additional game leaders.

Procedures

0:00 INTRODUCE the objectives for Session Two.

Distribute the list of objectives to each participant or show the list of objectives on an overhead projector.

0:05 DISTRIBUTE a copy of "Summary of the CISAG Program" to each participant, and introduce the five CISAG games (10 minutes).

a. Take about two minutes to highlight each of the games. Be sure to emphasize the "Behavioral Objectives" (see p. 6, Game Leader's Manual) as you introduce each game.

b. Define "internal factors" (see objective #2) as those personal considerations which cause individuals to think about their values, goals, ambitions, motivations, needs, behaviors and personal traits. It may help you to refer to the section on "Vocational Learning-Maturation as Internal" (p. 4, Game Leader's Manual).

0:15 PLAY CISAG (1 hour, 15 minutes).

Note to Leader

Some cautions should be noted. These cautions may help you in making judgments as this part of the session develops.

1. The participants may tend to ask questions or make comments about the appropriateness or inappropriateness of the CISAG materials for deaf students. Keep the objectives of this session in mind since the next session will provide for participant questions concerning the use of CISAG with deaf students.

2. It can be more difficult to play CISAG with adults than with children. Encourage the participants to answer the questions and play the game based on their own lives and preferences. They should not role-play the part of deaf children but should answer from their own adult point of view or experiences. You may wish to practice playing CISAG with the sub-group leaders in advance of the session. Reflections and seeking examples techniques help to keep adults involved.

a. Depending on the size of the in-service group, form sub-groups ranging from 4-15 members. This, of course, is dependent on personnel who can act as game leaders. Form the groups and assign locations. It is strongly recommended that each sub-group meet in a different room to minimize noise and distractions.

b. Allow 15 minutes for each game exposure. All groups should play Interests Continuum first, Life Goals second, and Life Situations third. These games are all played with the same leader (45 minutes).

1:00 c. After the first three games have been played, the basic gaming concepts should be established. For the fourth game play, How I See My Abilities, the game leaders should rotate so that the participants will have an opportunity to observe individual differences in gaming style (15 minutes).

1:15 d. Rotate leaders for the last game play, Interests Triangle (15 minutes).

e. During each session, insofar as possible, leaders should allow about 10-12 minutes to play the game saving the last 3-5 minutes for questions about the specific game. Participants can be reminded to hold other questions for the question-answer panel in the last segment of the session.

1:30 BREAK (optional).

1:40 QUESTION-ANSWER PERIOD (15 minutes).

Note to Leader

Participants may wonder about the origin of the games and the reason they were developed. A description of the development of the CISAG program can be found in the Game Leader's Manual (pp. 1-2). If questions arise regarding the development of the CISAG games for use with deaf students, a description of the experimental program can be found in A Supplemental Guide to the CISAG Games for Teacher's of Deaf Students (p. iii).

1:55 INTRODUCE the Game Leader's Manual (5 minutes). Show the overhead transparencies for pp. 3-6 of the Game Leader's Manual. It is not necessary that the participants read the material at this time since the purpose is simply to make them aware of the following sections: (1) The Theory of CISAG (pp. 3-5); (2) Behavioral Objectives (p. 6).

2:00 SEEK end of session feedback. Refer participants to original list of session objectives. Elicit questions and other feedback.

SESSION No. 3

LEARNING THE GAMING TECHNIQUES

The Rationale

Teachers may become overly concerned with "teaching" the concepts and terms used in the different games. They can get so involved with the content that the approach to learning undergirding the gaming strategy often is lost. In gaming, students learn from each other. They learn to think and discover. The gaming process provides opportunities for all the players to explore new or different areas of human knowing and feeling. Gaming relies on the participative sharing of as many different players as possible. In this strategy, everyone learns from everyone else. The game leader is a guide, not a teacher. Thus, gaming provides an opportunity to establish a unique type of communication with children--one that should be quite different from those used to impart knowledge.

Gaming can be very difficult for teachers who find it necessary to identify many possible meanings of a term and to screen the transmission of gaming information through their system of beliefs and values. Gaming respects human differences as these are reflected in the insights, understandings and experiences which are shared in the process. In gaming, the fear of a "wrong" answer (which often characterizes typical classroom learning) is replaced by conditions and techniques which encourage the players to share their feelings, ideas and experiences.

The CISAG program employs five different communication techniques: (1) listening, (2) reflection, (3) clarification, (4) questioning, and (5) seeking examples. These are means of effective human communication. They are not new or different. However, for many teachers who are asked to assume the role of CISAG game leader, they require both new and different behaviors. Some teachers find it very easy to adjust these gaming techniques to their own style of interaction with students. Others find it difficult. Most all teachers, with time and understanding, can learn to use these techniques effectively. Some find them so effective that they begin to use them in their everyday teaching.

Objectives

This session is directed toward helping the participants to begin to:

1. become familiar with procedures for establishing the conditions or atmosphere for gaming.

2. know the five gaming techniques which can be used to facilitate the gaming process.

3. become aware of the problems which they may encounter as they begin to use the five gaming techniques in the activities with their deaf students.

Materials Needed

1. List of objectives for Session Three (prepare one copy for each participant or make an overhead transparency for group showing). See Appendix C-1.

2. CISAG Game Leader's Manual

3. Game Guides for the five games introduced in Session Two (Interests Continuum, Life Goals, Life Situations, Interests Triangle, How I See My Abilities).

4. Supplemental Guide to CISAG for Teachers of Deaf Students.

5. "Career Insights and Self Awareness Gaming- CISAG - Program Communication Techniques" Training Tape.

6. Script for the "Career Insights and Self Awareness Gaming -CISAG- Program Communication Techniques" training tape (optional, but if used, prepare a copy for each participant). See Appendix C-2.

7. Equipment to show $\frac{1}{2}$" video tape.

8. "CISAG Gaming Techniques Worksheet" (prepare one copy for each participant). See Appendix C-3.

9. "Gaming Techniques Exercises" (prepare a copy of this practice exercise for each participant). See Appendix C-4.

10. Overhead transparency of "General Reminders" and "Specific Reminders" for game leaders. Use the listings in the Interests Continuum Game Guide (pp. 1-2) to make the overhead transparency.

Procedures

0:00 INTRODUCE the objectives for Session Three (5 minutes).

Distribute the list of objectives to each participant or show the list of objectives on an overhead projector.

0:05 INTRODUCE the gaming process in the classroom (5 minutes).

a. Identify the five gaming techniques by writing or posting the words where the participants can refer to them.

b. Distribute the "CISAG Gaming Techniques Worksheet" for review purposes. Let the participants review each of the gaming techniques and ask questions which may help in identifying the techniques or differentiating among them. Participants will use this form to record their observations and reactions to the gaming dramatizations in the video tape. The video tape will instruct the participants when to record their responses

0:10 SHOW the training tape "Career Insights and Self Awareness - Gaming - CISAG-Program Communication Techniques" (30 minutes).

Note to Leader

You should read the video tape script and preview the tape before the session to familiarize yourself with the content of the tape and the nature of participant involvement. Before the preview, you should become familiar with the "CISAG Gaming Techniques Worksheet" and the post-viewing questions which may be used.

0:40 SEEK worksheet responses to the tape (25 minutes).

a. Ask participants to share their observations and/or reactions to the different dramatized segments.

b. The following questions may be used to guide the post-viewing discussion.

(1) To what extent are you familiar with these techniques?

(2) What do you think about the appropriateness of using these techniques in your work situation?

(3) What kind of help do you need in using these techniques?

(4) What specific problems do you think you might have with these techniques?

(5) In what ways can these techniques be used to separate content and feeling?

(6) How can these techniques be used to direct student thinking in concrete or abstract ways?

1:05 BREAK (optional).

1:15 ORGANIZE sub-groups for gaming techniques practice exercises (25 minutes).

a. Distribute one copy of "Gaming Techniques Exercises" to each participant.

b. Form sub-groups for practice in formulating leader responses. The exercise sheets allow participants to gain practice in using each of the five different responses. Sub-group leaders should be sure to differentiate between a reflecting response, which tends to "mirror" the feeling or content of a student's statement and a clarifying response, which is used to help students explore an idea or a feeling so that they are more fully aware of what they are thinking or feeling.

1:40 INTRODUCE the Game Guides (10 minutes).

a. Show the six different Game Guide booklets. Encourage the faculty to review and study the game guide instructions before they start to play a game.

b. Review the purpose of the sections on "General Reminders" and "Specific Reminders" using the transparencies made from the Interests Continuum game (pp. 1-2). The examples in the transparencies will serve to illustrate the nature of the reminders and the types of game play problems that can be avoided.

c. Introduce the "Directions for Playing Game" section emphasizing how each game has been developed through a series of sequenced "game play" sessions.

d. Refer the participants to the Game Leader's Manual (pp. 7-10) for further details on gaming conditions and techniques.

1:50 INTRODUCE the Supplemental Guide to CISAG for Teachers of Deaf Students pointing out the various sections which provide help in modifying the program for deaf students (10 minutes).

Note to Leader

Many of the problems in gaming with deaf students can be prevented if teachers, as game leaders, will become familiar with these materials and, in particular, these sections before they begin gaming. Under no circumstances should this section of the in-service session be omitted.

2:00 SEEK end of session feedback. Refer participants to the original list of session objectives. Elicit questions and other feedback.

SESSION No. 4

LEARNING ABOUT THE STRUCTURE OF OCCUPATIONS

The Rationale

This program model of career education utilizes the system for classifying jobs developed by the United States Department of Labor. The Dictionary of Occupational Titles (D.O.T.) contains 21,741 separate occupational titles. These jobs are classed and coded into nine occupational categories which are further divided into divisions and groups. These nine categories represent an arrangement of work that reflects the field and purpose of each endeavor. This system of job grouping avoids the hierarchical connotations of an older system which categorized work by levels ranging from unskilled to professional. The present system provides for the following nine occupational categories:

Professional, technical, and managerial occupations

Clerical and sales occupations

Service occupations

Farming, fishery, forestry, and related occupations

Processing occupations

Bench work occupations

Structural work occupations

Miscellaneous occupations

This newer system of job classification also provides for determining the degree to which each job is related to working with data, people or things. In each of these areas, a number of work functions have been identified, and the coding of the job indicates the highest appropriate function which is utilized in that job. The work functions associated with working with data, people or things are enumerated below.

Data	People	Things
Synthesizing	Advising	Setting-Up
Coordinating	Negotiating	Precision Working
Analyzing	Instructing	Operating-Controlling
Compiling	Supervising	Driving-Operating
Computing	Amusing	Manipulating
Copying	Persuading	Tending
Comparing	Speaking-Signaling	Feeding-Offbearing
	Serving	Handling

In view of the many jobs and the changing nature of jobs and job activities, it seems inappropriate to approach career education solely from the informational point of view. Young people could never hope to learn about all the job opportunities. Furthermore, the evolving routines of work activities would soon make much of their learning obsolete. Therefore, this program model emphasizes learning about the different work functions and the characteristics of these functions. Young people can learn to assess themselves in relation to these work functions. They can learn to identify these work functions and the nature of work tasks associated with them. They can use their knowledge of and feelings about these different work functions in assessing job opportunities and requirements. This type of information should have greater application to all types of job seeking. Furthermore, it should have a longer period of usefulness. Both now and in the future, as they learn about jobs and their activities, students can transfer and apply this information. In this way, the program model caters to the life-long process of evolving a career--a life time of learning about the world of work and the continual nature of choosing where one will participate in it.

For educators of the deaf who are involved in career development activities, the rationale for learning the coding system is the resultant utility of knowing how to use Volumes I and II of the D.O.T. as general reference tools. The strategies in this session help participants gain insight into the system of job classification and the need for numerical coding, but does NOT require memorization. Availability of these volumes should provide access to information about jobs and comprehensive descriptions of the concepts from the world of work.

It is not expected that most deaf students will use these books because of their highly technical nature. The concepts and information from the D.O.T. come to the students through the work function slide series and the CISAG games, both of which are covered in other sessions in this in-service training program.

Objectives

This session is directed toward helping the participants to begin to:

1. become familiar with the United States Department of Labor system for classifying and coding occupational titles and work functions.

2. identify job stereotypes and outmoded occupational classifications.

3. identify career opportunities for deaf students.

Materials Needed

1. List of objectives for Session Four (prepare one copy for each participant or make an overhead transparency for group showing). See Appendix D-1.

2. Slide-tape set "Learning to Use the Dictionary of Occupational Titles."

3. Script of slide-tape narration for participant use (optional, but if used, prepare one copy for each participant). See Appendix D-2.

4. Carousel projector, screen and cassette tape recorder.

5. Career Opportunities for the Deaf, Munson, H. and Phillips G., 1974.

6. "Practice in Job Classification" worksheet (prepare a copy for each participant). See Appendix D-3.

7. Occupational classification materials

   a. Dictionary of Occupational Titles, "Definitions of Titles," Volume I, Third Edition, 1965.

   b. Dictionary of Occupational Titles, "Occupational Classification," Volume II, Third Edition, 1965.

   c. A Supplement to the Dictionary of Occupational Titles, "Selected Characteristics of Occupations," Third Edition, 1966.

Procedures

0:00 INTRODUCE the objectives for Session Four (5 minutes).

   a. Distribute the list of objectives or show the list on an overhead projector.

   b. Emphasize the newer system of occupational categories that avoids the old hierarchical connotations that classify jobs from professional to unskilled.

0:05 SHOW the first 17 slides of the slide-tape presentation "Learning to Use the Dictionary of Occupational Titles" (10 minutes).

0:15 SHOW and explain briefly Volumes I and II of the Dictionary of Occupational Titles (5 minutes).

a. It may help to explain these books by referring to specific pages or examples from the script for the slide-tape set.

b. Emphasize the professional nature of these references for faculty use and their limited value to students.

0:20 USE the "Practice in Job Classification" worksheet (15 minutes).

a. Distribute only the first page of the worksheet to each participant. The worksheet consists of four pages. Each page should be completed before the next page is distributed. Have each participant complete the coding exercises in order. As the participants finish a page, distribute the next one until all four pages have been completed. The leader and any assistants should be available to help participants who have questions and to distribute the worksheet materials as the group members are ready. Save the sheets for later use in this session.

Note to Leader

Preview this activity by doing the worksheet before the session. Look up those job titles about which you would like more information.

b. Correct codings for the final 12 practice job titles on page 4 are as follows:

1	2	0	Missionary	0	2	0	Actuary
8	6	2	Pipe Fitter	1	5	0	Actor
2	0	2	Court Reporter	2	0	4	Sales Correspondent
8	1	0	Arc Welder	0	1	7	Cartographer
8	4	0	Painter	0	2	4	Geophysicist
2	9	0	Grocery Clerk	8	6	1	Stonemason Helper

0:35 SHOW the remaining slides in "Learning to Use the Dictionary of Occupational Titles" (40 minutes).

1:15 BREAK (optional).

1:25 PRACTICE using the Dictionary of Occupational Titles (20 minutes). Assign participants to small sub-groups of ten or fewer persons each being sure they take with them page 4 of the worksheet just completed.

a. Direct the participants to use Volume I of the Dictionary of Occupational Titles to obtain the definition of the occupation and the classification number for three or four of the 12 job titles listed on page 4 of the worksheet (10 minutes).

Note to Leader

This information will be found in Volume I ("Definitions of Titles") which lists all occupations in alphabetical order.

b. Have the participants select two of the job titles for which they have obtained a definition in (a) and direct them to use Volume II of the Dictionary of Occupational Titles to obtain information which describes the occupational division and the occupational group in which the job titles belong (10 minutes).

Note to Leader

The occupational group and division information is arranged by occupational categories on pages 33-213 of Volume II ("Occupational Classification"). Occupational group information is shown in two-digit upper case bold type headings. Occupational division information is shown in three digit, lower case, bold type headings.

1:45 DISCUSS Career Opportunities for the Deaf (15 minutes).

a. Describe each part as follows (15 minutes):

Part I (Occupational Categories) - a listing of job titles in each occupational category.

Part II (Work Orientation: Data) - a listing of job titles for each of the seven data-oriented work functions.

Part III (Work Orientation: People) - a listing of job titles for each of the eight people-oriented work functions.

Part IV (Work Orientation: Things) - a listing of job titles for each of the eight things-oriented work functions.

Part V (Alphabetical Arrangement) - an alphabetical listing of all job titles.

b. Explain the use of this book as a practical reference tool for teachers and counselors (10 minutes).

Note to Leader

A complete description of how the data in Career Opportunities for the Deaf were collected may be found in the research report, A Survey of Career Opportunities for the Deaf.

2:00 SEEK end of session feedback. Refer participants to the original list of session objectives. Elicit questions and other feedback.

SESSION No. 5

LEARNING ABOUT WORK ORIENTATIONS AND WORK FUNCTIONS

The Rationale

All job titles in the occupational structure of the Dictionary of Occupational Titles are classified according to the work functions. The D.O.T. uses three major work orientations: data, people and things. Helping young people discover and explore the work functions which are incorporated into each orientation is one meaningful way of acquainting them with the world of work and the variety of opportunities it affords. Even more importantly, these work functions can be examined with reference to their significance in everyday living. These work functions are not restricted to occupational endeavors. Young people are using these functions everyday in responding to the varying demands of their own living and working. There is, therefore, an immediate reality to these work orientations. By relating these work functions to everyday life, the way people work becomes an immediate and personal consideration. Work, in this sense, can have concrete meaning for each student. It provides students with a way of examining their own "being" and "becoming."

Objectives

This session is directed toward helping the participants to begin to:

1. become acquainted with the Data-People-Things Puzzle game in the CISAG program.

2. identify and relate home, school and community activities to the various work functions.

Materials Needed

1. List of objectives for Session Five (prepare one copy for each participant or make an overhead transparency for group showing). See Appendix E-1.

2. CISAG Data-People-Things Puzzle game and Game Guide (one set for each sub-group).

3. Slide-tape set "Work Functions and Everyday Life."

4. Script of slide-tape narration for participant use (optional). See Appendix E-2.

5. Carousel projector, screen and cassette tape recorder for showing slide-tape set.

6. "Data-People-Things: Definitions" (prepare one copy for each participant). See Appendix E-3.

7. "Home, School and Community Activities" worksheet (prepare one copy for each participant). See Appendix E-4.

Space and Personnel Needed

1. Extra rooms (or space) for each sub-group gaming session.

2. For sub-group gaming, additional game leaders as necessary.

Procedures

0:00 INTRODUCE the objectives for Session Five (5 minutes).

Distribute the list of objectives or show the list on an overhead projector.

0:05 SHOW the slide-tape presentation "Work Functions and Everyday Life" (30 minutes).

Explain to participants that the information in the presentation will be helpful in playing the Data-People-Things Puzzle game which follows.

0:35 PLAY the Data-People-Things Puzzle game (60 minutes).

a. Divide the participants into sub-groups of approximately ten each. Sub-group leaders should follow the same procedures utilized in Session Two. In introducing the Data-People-Things Puzzle game during the first segment on Data (20 min.), the game leader should spend a few minutes to emphasize the behavioral objectives of the game (p. i of the Game Guide).

b. BREAK (optional at 0:55).

c. CONTINUE game play after break (30 minutes).

The remaining sections of the D-P-T Puzzle game can be allotted equal time (15 minutes each) so that the participants can become familiar with the game play for each work orientation. Participants should return to the large group assembly after the three puzzle games have been played.

Note to Leader

It is essential that each sub-group leader be thoroughly familiar with the multiple definitions of each work function and know how to differentiate closely related concepts. In preparation for leading the games, they should preview the D-P-T Puzzle Game Guide and view the work function slide series.

1:35 PRACTICE in identifying home, school and community activities that are related to the data-people-things work functions (25 min.).

a. Distribute "Data-People-Things: Definitions" and review the content briefly with the participants.

b. Use "Home, School and Community Activities" worksheet to have the participants identify home, school or community activities that are related to the twenty-three work function areas. You may ask the participants to work independently or in small groups. Reserve some time for group sharing of the activities identified.

2:00 SEEK end of session feedback. Refer participants to the original list of session objectives. Elicit questions and other feedback.

SESSION No. 6

USING THE WORK FUNCTION SLIDE SERIES IN THE CLASSROOM

The Rationale

Helping students become familiar with the world of work by learning about the various work functions is not a simple task. The abstract nature of the terms makes it appear overwhelming. Yet, most deaf students have been involved in tasks, situations or activities that represent most, if not all, of the twenty-three work functions. They need only one or two concrete examples to initiate their learning and understanding of these concepts. The terms and vocabulary which students will encounter in the work function slide series are generally no more difficult than those they may deal with in regular classroom work. Such words as "impervious," "connoisseur" or "succinct" are illustrative of other academic exposures. Some concepts are easy to grasp; others are more difficult. In learning the vocabulary of career education, deaf students, like their hearing counterparts, will be able to identify with some facet of the concept.

Helping students to understand the different work functions is an important element of expanding their awareness of work and its nature. Since all of the work functions have a "here and now" quality, deaf students can, with help, relate them to a concrete experience.

School work involves many data-oriented activities. Students do computing in mathematics. They engage in copying and comparing in many different subject matter areas. Work tasks of a compiling and analyzing nature are frequently associated with vocational and academic studies.

People-oriented activities are a part of everyone's experience. Most students, at one time or another, have negotiated with their parents, instructed a friend, served a neighbor, advised a sibling, or entertained for guests. These everyday living experiences can be the backbone of a career education program.

Objectives

This session is directed toward helping participants to begin to:

1. become aware of the work function slide series and its possible uses in the curriculum.

2. identify curricular opportunities for using each of the 23 work function slide sets.

3. be able to relate the work of the school classroom and everyday life to the activities of the working world.

4. determine when to use the work function slide sets appropriately in a classroom lesson.

Materials Needed

1. List of objectives for Session Six (prepare one copy for each participant or make an overhead transparency for group showing). See Appendix F-1.

2. One slide set from the Data-People-Things series.

3. Materials for the introductory and follow-up activities specified in the Teacher's Manual for the slide set you select.

Note to Leader

Although you may choose any of the twenty-three work function slide sets, the "Driving-Operating" set represents concepts which can be grasped readily in a model lesson. Examples to describe the procedures for this session have been drawn from the "Driving-Operating" slide set.

4. Teacher's Manual to accompany the selected slide set.

5. Carousel project and screen.

6. Representative slide sets and teacher materials from each of the data, people and things work function slide series for display.

7. "Curricular Opportunities" (prepare one copy for each participant). See Appendix F-2.

Procedures

0:00 INTRODUCE the objectives of the session (5 minutes).

a. Distribute the list of objectives to each participant or show the list of objectives on an overhead projector.

b. Explain the process of the session as one which illustrates the model use of a work function slide set in the classroom.

c. Indicate the slide set you have selected for viewing explaining the materials to be used and the planning and previewing which were necessary for you to prepare for a work function slide presentation.

d. In planning and conducting this session, you should keep in mind that the methods and materials you employ could serve as the model for other teachers who will use the work function slide sets.

0:05 INTRODUCE the slide set (15 minutes).

a. Use one of the suggested activities for "Introducing the Slide Set" from the Teacher's Manual for the slide set you have selected to use.

Note to Leader

If you are using the Driving-Operating set, you can use either (a) or (b) in the "Introducing the Slide Set" section (p. 3) of the Teacher's Manual. In developing (b), you may wish to select one participant to role play the activities involved in driving (steering, accelerating, braking) a car (snowmobile, motorcycle or bicycle).

b. At the conclusion of the activity you have selected as an introduction, you may inform the group of other suggested options in the Teacher's Manual which can be used to introduce the slide set you have selected.

0:20 SHOW the selected work function slide set (40 minutes).

a. Show the selected set of slides using the caption-picture frame-by-frame guide in the Teacher's Manual (30-35 minutes).

b. Note the section on "Vocabulary Words" and use it in the same manner you would in the classroom. Allow the group to ask questions or offer comments as you proceed with the viewing.

c. Use selected questions from the "Post-Viewing Questions for Student Discussion" section when you have finished showing the slide set (5-10 minutes).

1:00 BREAK (optional).

1:10 CONDUCT Slide Set Follow-Up Activity (20 minutes).

In the Teacher's Manual, select one activity from the section "Follow Up Activities to Expand the Learning Exposures." Develop the activity as fully as the limited time allocated here will permit.

Note to Leader

If you are using the Driving-Operating slide set, there are four options on p. 8 of the Teacher's Manual. If you use (a), you may wish to post "driving-operating" from the Data-People-Things Puzzle game. If you elect to use (c), you may wish to use Career brief No. 18 (Truck Driver). However, you should keep in mind that the Career Brief Series is not introduced until Session 8. If you select (d), you will need to identify and make arrangements for the speaker in advance of this session. Also, if your school has video tape facilities, you could prepare a video tape of students engaged in follow-up activities. These can be shown in lieu of actual participant involvement.

1:30 PRACTICE relating the work functions to school activities (30 minutes).

a. Distribute the "Curricular Opportunities" exercise sheet.

b. Divide the participants into small sub-groups. Groups may be organized by work orientations, work functions or by subject matter interests. Discuss several worksheet examples briefly so that all members of the group understand the task.

c. Have the participants use the worksheet to identify more examples relating the work functions to the curriculum. You can begin by having individuals work on the exercise sheet independently for a few minutes or through group effort.

d. Reserve time for total group sharing of the curricular opportunities which they have identified.

2:00 SEEK end of session feedback. Refer participants to the original list of session objectives. Elicit questions and other feedback.

SESSION No. 7

SEEING WORKERS ON THE JOB

The Rationale

Making field trips to industrial plants or places of business is a well established vocational guidance technique. However, the field trip technique in this program model has been developed with a definitive focus. It is designed to provide students with a chance to observe different types of work functions as they exist in the real world of work. The field trip offers opportunities to observe real work tasks as these are being performed by different workers in a variety of jobs. Job titles are secondary to the observation of different work functions. The particular product (or service) and the process (or equipment) used to make or provide it are relegated a much lower priority.

The field trip helps in establishing communication between educators of the deaf and employers. While this is an effect rather than a purpose, it is an important consideration as schools identify appropriate field sites for students to visit. The field trip can be helpful in initiating discussions between educators of the deaf and employers about the ways whereby job adaptations or modifications can be made for the deaf worker.

Many teachers of the deaf have very little up-to-date knowledge of jobs and job requirements. By becoming involved in the field trip, they can begin to accumulate information and ideas which they can use appropriately in their classes. By using the field trip technique in this way, both teachers and students stand to learn from the experience.

Objectives

This session is directed toward helping the participants to begin to:

1. become familiar with the field trip technique as a means of reinforcing and expanding work function concepts associated with data-people-things work orientations.

2 become aware of work settings in the community where field trips can be made

3. become sensitive to employer feelings as they relate to the employment of the deaf or to the accommodation of work routines for the deaf employee.

Materials Needed

1. List of objectives for Session Seven (prepare one copy for each participant or make an overhead transparency for group showing). See Appendix G-1.

2. Field trip program materials for display (make copies available).

   a. Learning About Work (student workbook).

   b. Teacher's Manual for Learning About Work Through Field Trips.

3. "Field Trip Information Sheet." See Appendix G-2.

4. "Community Survey" results (prepare one copy for each participant). The information obtained on the "Field Trip Information Sheet" should be collated on the "Community Survey" form prior to the session. See Appendix G-3.

Note to Leader

In preparing the "Community Survey," first mail the "Field Trip Information Sheet" to eligible businesses or industries in your geographic area. Allow at least three weeks to hear from the firms you contact. When the responses have been received, prepare the community survey summary for this session. In compiling these data, list the name of the industry and describe the product made or the service rendered by the firm. Place an "X" in the work orientation column if workers can be observed doing jobs that involve data, people or things work functions. Also, in the "Yes" and "No" columns, indicate whether they employ deaf workers. Finally, as a benefit for the entire school staff, note any particular subject matter areas (or units of study) that might be appropriate for visiting that industry.

Personnel Needed

Five panel participants are recommended for the discussion panel if possible. Seek your panel members from local employer's representing industrial and business establishments. In determining the panel composition, it is not necessary to secure only these representatives who are known to employ the deaf. You may find that a mix of those who have deaf employees and those who do not employ deaf workers will generate the widest range of interest and reaction. In contacting your panelists, ask them to prepare a very short presentation (not to exceed 5 minutes) dealing with the problems or benefits of hiring deaf workers and/or their experiences with the deaf employee.

Procedures

0:00 INTRODUCE the objectives of the session (5 minutes).

Distribute the list of objectives to each participant or show the list of objectives on an overhead projector.

0:05 PRESENT the Teacher's Manual for Learning About Work Through Field Trips and the student workbook Learning About Work (20 min).

a. In discussing the Teacher's Manual emphasize the three phases of the field trip: (1) preparation, (2) visitation, and (3) follow-up.

b. In discussing the student workbook, Learning About Work, emphasize (1) the work function definitions that are included to help students define and characterize the concepts, (2) the pre- and post-trip worksheets, and (3) the relationship between the field trip materials and the Data-People-Things Puzzle game.

0:25 DISCUSSION PANEL (50 minutes).

a. Allow panel participants five minutes to talk about their experience (or inexperience) with deaf workers. Insofar as possible, keep the panel focused on the attitudes of other workers toward deaf employees; the problems or benefits of hiring deaf workers; some of the ways job tasks have been modified (tailored) for deaf workers or on other related topics (25 minutes).

b. After the panelists have presented their introductory comments, allow time for the panelists to interact by raising questions or sharing reactions (10 minutes).

c. Seek audience questions and reactions (15 minutes).

Note to Leader

The following questions can be used to initiate the discussion period, if necessary:

1. What facts about deafness would make your business an appropriate or inappropriate place for a deaf person to work?

2. Have you ever had to dismiss a deaf worker? Why?

3. What safety hazards would be obstacles for deaf people who work in your firm?

4. Would the nature of jobs in your firm make it difficult for a deaf worker to get a promotion?

5. How do job foremen or supervisors communicate with deaf workers?

While you may want to encourage the participants to direct their questions and comments to the panelists, you should be ready to field any comments or generate questions which pertain to the background or implementation of this component. Panelists should be encouraged to interact with each other. Avoid having the discussion focus too much on how to make contacts with industrial personnel since that will be covered in the "Community Survey" report.

1:15 BREAK (optional).

1:25 PRESENT information from your community survey (30 minutes).

a. Distribute the "Community Survey" sheet containing information from your community survey.

b. Review the different types of field sites and locations that are available for field trips. This will help members of the school staff to plan and arrange for field visits. The "Community Survey" information should list all the responding firms and businesses who wish to cooperate in hosting a field trip, the nature of their business, and the work orientation area (data, people and/or things) which can be observed.

c. Establish channels for communicating with each firm by designating one individual in the school to make field trip arrangements. Procedures for making arrangements for bussing students should also be explained.

1:55 Field Trip SIGN-UP (5 minutes).

For any participants who wish to involve their classes in the field trip activity, there should be an opportunity to sign up for an appropriate site and date. Final arrangements can be made by the participant or the career development leader who should coordinate the selection of field trip sites.

2:00 SEEK end of session feedback. Refer participants to the original list of session objectives. Elicit questions and other feedback.

Additional In-Service Option

As an adjunct activity to this session, you may wish to arrange a field trip for members of the school staff. Through this method of modeling, staff members can have the experience of making a field trip where the primary purpose is to observe the work functions performed by different workers. Involvement in this activity can help to reduce some of the anxiety and/or uncertainty which some members of the group may experience. You can schedule this activity as a part of the program or as a voluntary activity for those who are interested.

SESSION No. 8

PROVIDING INFORMATION ABOUT JOBS

The Rationale

There is an abundance of material providing information about jobs. Unfortunately, most of this material has been prepared for hearing students. It has some value for deaf students who may want to learn more about a specific job opportunity and its requirements. However, many of the problems of deaf workers stem from the receptive and/or expressive communication demands of a job. Career information, therefore, to be really significant for deaf youth, should detail realistically the communicative demands of a job as well as the skills and understandings needed and the activities to be performed.

To provide for the specific informational needs of deaf students, a series of career briefs has been developed as a component of the program model. These briefs have been prepared for the secondary deaf student and are designed to provide information which describes the communicative aspects of a job. The demands of a job and the problems which the deaf worker can expect to encounter in meeting these demands are portrayed as clearly and as realistically free from stereotypes as possible. The career briefs are designed to excite and challenge young people and, within the reason of their abilities, serve to stretch their hopes and aspirations.

At this point, the number of career briefs are limited. Those which have been prepared cover job opportunities in all occupational categories and encompass nearly all of the twenty-three work functions. When used with deaf youth, they serve to make them aware, not only of different jobs, but of the importance of considering the communication needs and demands associated with all work. Thus, the career brief component serves to provide needed information about specific jobs and to make students aware of the four communicative skills which they need to consider. The briefs provide information concerning communication in the following four areas: (1) listening-observing, (2) reading, (3) speaking, and (4) writing.

Objectives

This session is directed toward helping the participants to begin to:

1. become aware of four communication skills as they have an impact on the career choice process of deaf students.

2. explore ways in which they can use the career brief component in their classrooms and learning resource centers.

3. develop insights concerning the career information needs of deaf youth.

Materials Needed

1. List of objectives for Session Eight (prepare one copy for each participant or make an overhead transparency for group showing). See Appendix H-1.

2. Slide-tape set "Developing and Using Career Briefs."

3. Carousel projector, screen and cassette tape recorder for showing the slide-tape set.

4 Script of narration for slide-tape set (optional, but if used, prepare one copy for each participant). See Appendix H-2.

5. Display materials (optional).

   a. Career briefs representing a variety of occupational categories and work functions.

   b. Occupational Outlook Handbook.

   c. Encyclopedia of Careers.

   d. Career Opportunities for the Deaf by Munson and Phillips, 1974.

   e. Other career information materials available in the school.

6. List of career briefs in the "Career Opportunities for the Deaf Student Series" (prepare one copy for each participant). See Appendix H-3.

7. Prepare five overhead transparencies showing the composite occupational communication profile and the individual profiles for the four communication areas: (1) listening-observing, (2) reading, (3) speaking and (4) writing.

8. Display one complete set of the "Career Opportunities for Deaf Students Series" (40 briefs).

Procedures

0:00 INTRODUCE the session objectives (15 minutes).

a. Distribute the list of objectives to each participant or show the list of objectives on an overhead projector.

b. Discuss the limitations of a career education program that relies solely on the informational channel (external information about jobs, duties, requirements and opportunities).

c. Remind the participants of the following career education program ingredients:

(1) Getting information about jobs (informational channel).

(2) Learning concepts about the nature of work, work roles and work functions (conceptual channel).

(3) Becoming aware of self - one's interests, aspirations, goals, motivations, abilities, behaviors and values (self channel).

(4) Having experiences which can be related to the work function concepts (experiential channel).

d. Help them to relate informational inputs and other program channels by indicating that (1) the channels of career education are varied and accommodate the interactive nature of the vocational learning-maturation process by helping the student to build on these different facets of learning, (2) the wider range of internal concerns- values, needs, pressures, goals and motivations-extends beyond the external measurement of interests and abilities which we commonly tend to emphasize, (3) the thinking aspects of career education exposures as these are a part of knowing (knowledge, comprehending, internalizing, integrating), and the thinking operations (observing, classifying, questioning) must be developed so that young people can engage in the decision making process.

0:15 SHOW the slide-tape set "Developing and Using Career Briefs (40 minutes).

0:55 BREAK (15 minutes).

Note to Leader

During the break encourage the participants to examine the display materials and to look over different briefs in the "Career Opportunities for Deaf Students Series."

1:10 DISCUSS the Occupational Communications Profile (20 minutes).

Use the overhead projector to show the Occupational Communications Profile (OCP) section of a career brief. Begin with the composite OCP and proceed through the four individual profile areas. Participants can raise questions and offer comments as you proceed or, if you prefer, ask the group to withhold their questions until you have finished.

1:30 PRESENT the career brief series materials (30 minutes).

Distribute and discuss the list of career briefs in the "Career Opportunities for Deaf Students Series." Indicate the occupational categories and work functions represented in each of the different career briefs. Discuss the general areas treated in the briefs, the data-people-things theme as treated in the "Nature and Function of Work" section and the use of CISAG game terms in describing occupational activities and requirements.

Note to Leader

Some members of the group may question the occupational employment possibilities of deaf students by challenging the inclusion of certain job titles. Try to avoid having the presentation degenerate into a discussion of potential opportunities by targeting your responses to the objectives of the session concerning the type of information included in the briefs and their possible use in the classroom.

Some participants may be interested in the methods used for collecting the data which served as the basis for each career brief. Deaf workers were identified via several sources (placement offices, survey, social organizations for the deaf, etc.) and interviewed, whenever possible, about their work. They were also asked to rate the communication demands of their jobs on the arbitrary six-point scale which appears in the Occupational Communications Profile. The average of all responses was used as the final rating for each profile.

2:00 SEEK end of session feedback. Refer participants to the original list of session objectives. Elicit questions and other feedback.

SESSION No. 9

CLARIFYING WORK ATTITUDES AND VALUES

The Rationale

It has been repeatedly noted that deaf students seldom have any idea of how to go about getting a job or what may be expected of them in order to succeed in it. In many ways, the problems associated with developing work attitudes and values are universal. Most ideas about work have been generated in a haphazard way. Very few people have had an opportunity to examine their own beliefs, attitudes and values as these are related to work. Far too often, the emergence of attitudes and values toward work are left to chance. Perhaps it is because we assume that everyone has not only been exposed to the American work ethic, but has accepted that ethic and the commitments to work that it embraces. This assumption seems to be increasingly less valid. It certainly can be challenged as a basis for a "do nothing" approach to educating our youth about work attitudes and values.

The program model incorporates the clarification of work values as a component to provide a basic structure for making students aware of the values and attitudes associated with work. By actively engaging students in the valuing process, they can become involved in examining their own work attitudes and values. Where these values have not been previously known or considered, students are made aware of them. In this way, they have more options from which they can choose (choosing). Where students seem uncertain or unclear about their attitudes or values, they have an opportunity to explore them further. In this way, they can be more assured about the beliefs and behaviors they internalize and cherish (prizing). Where these values and attitudes are an integral part of one's repertoire, they can be reaffirmed and consistently employed in making career choices and decisions (acting).

Four value areas are incorporated into the activities of this component: work habits, the conditions of work, worker motivation and satisfaction, and the economic factors of work. Students have an opportunity, through values clarification strategies, to become aware of their own and society's values and to think about and assess their own feelings and beliefs regarding many aspects of these four areas.

Objectives

This session is directed toward helping the participants to begin to:

1. become familiar with areas and topics which are associated with work attitudes and values.

2. explore the valuing process (choosing, prizing and acting).

3. become aware of several values clarification strategies as they can be applied to work oriented topics.

4. use the five gaming techniques (listening, reflecting, clarification, questioning and seeking examples) to facilitate the valuing process.

Materials Needed

1. List of objectives for Session Nine (prepare a copy for each participant or make an overhead transparency for group showing). See Appendix I-1.

2. "Clarifying Work Attitudes and Values" Training Tape.

3. Equipment to show $\frac{1}{2}$" video tape.

4. Script for "Clarifying Work Attitudes and Values" Training Tape (optional, but if used, prepare a copy for each participant). See Appendix I-2.

5. "Valuing and The Affective Domain" (prepare a copy for each participant). See Appendix I-3.

6. Display materials

   a. Clarifying Work Values: Strategies for Career Education by Munson and Egelston. (Have one copy for display and one copy for each small group leader).

   b. Values and Teaching by Raths, Harmin and Simon

   c. Values Clarification by Simon, Howe, and Kirschenbaum

   d. Clarifying Values Through Subject Matter by Harmin, Kirschenbaum and Simon.

   e. Working by Studs Turkel

Space and Personnel Needed

1. Extra rooms (or space) for each sub-group valuing session.

2. For sub-group valuing, 2-3 additional leaders depending on size of the group.

Procedures

0:00 INTRODUCE the objectives of the session (10 minutes).

Distribute the list of objectives for Session Nine or show the list of objectives on the overhead projector.

Note to Leader

Introduce the variety of beliefs and values people have about work by using the voting questions strategy. Instruct the staff members to raise their hands if they can respond positively to the following questions as you read them:

1. Do you believe children should have to work for their allowance?
2. Would you change your lifestyle if your income were doubled?
3. Do you think that women should stay home and be primarily wives and mothers when their children are very young?
4. Do you do your best work under pressure?
5. Do you think boys have to work harder for success than girls?
6. Would you continue to work for a boss you dislike?

Pause to accept all responses without judgmental feedback (avoid: "very good" or "I like that" by substituting "that's interesting" or "okay," etc.). Point out the variety of attitudes that will probably come out of the activity. Stress the lack of right and wrong answers. Emphasize that values clarification is based on personal feeling and opinion.

0:10 SHOW the training tape "Clarifying Work Attitudes and Values" (30 minutes).

Distribute "Valuing and The Affective Domain" to each participant. Indicate that reference to this material will be made in the video tape.

Note to Leader

You should review the narration in advance so that you will be familiar with the development of the concepts presented in the tape and the materials which are used to aid in participant understanding. You may want to remind the group to look for the various gaming techniques as they are used in the values clarification strategies.

0:40 PARTICIPATION in values clarification activities (50 minutes). Remind participants to keep their copy of "Valuing and The Affective Domain" available for reference during this activity.

a. Depending on the size of the in-service group, you should form sub-groups ranging from 4-15 members. This, of course, is dependent on personnel who can act as game leaders. Assign locations so that each sub-group can meet in a different room to minimize noise and avoid distraction.

b. Each group will become engaged in using one values clarification strategy from each of the four value areas covered in Clarifying Work Values: Strategies for Career Education. The sub-group leaders should determine in advance which strategy will be used in each area so that the participants can have exposure to at least four different strategies.

c. Sub-group leaders should rotate at the mid-point (after two exposures - about 1:05). By changing sub-group leaders, the participants have an opportunity to observe individual variations in conducting valuing activities.

d. During each exposure, insofar as possible, leaders should allow about 8-9 minutes for the valuing activity and 2-3 minutes for questions. Participants can be reminded to hold their more general questions for the question-answer panel in the last segment of the session.

1:30 BREAK (optional).

1:40 QUESTION-ANSWER PANEL (20 minutes).

a. Initiate the panel session by introducing the booklet Clarifying Work Values: Strategies for Career Education and the other books on display noting their availability for school staff use.

b. The panel should consist of all the sub-group leaders. The participants should have many questions and concerns. The panel may choose to answer general questions from the participants or to initiate the session by each responding to one of the questions below.

(1) Where can I get more information about the valuing process and values clarification strategies?

(2) What do you do if the students express values which are different from (or in opposition to) your own?

(3) How do you know if students are developing the "right" values?

(4) Is the school an appropriate setting to help students clarify their work values?

(5) What do you do when students express values which you know are contrary to those which the parents or school may be trying to promote and inculcate?

(6) If students express a value that could have negative consequences, is it the teacher's responsibility to call this to their attention?

(7) How do teachers find time to use the valuing strategies in their classes?

2:00 SEEK end of session feedback. Refer participants to the original list of session objectives. Elicit questions and other feedback.

Additional In-Service Option

It would be helpful to schedule several valuing strategies as classroom demonstrations in the immediate future so that teachers could observe the leaders (or others experienced in using the values clarification strategies) with their own students. You may wish to make a classroom video tape which could be made available for members of the staff to view.

SESSION No. 10

(This session should be scheduled 6-8 weeks after Session 9)

EXPLORATIONS IN CAREER EDUCATION: REVIEWED AND RE-EVALUATED

The Rationale

During the previous sessions, many differences between older and newer concepts of career education have been explored. Agreements and disagreements have undoubtedly been expressed and discussed. New insights have hopefully taken root as participants in the group have found meaning and significance in the ideas presented or the materials used. It takes many weeks to establish a new program and to change old ways of working. However, at some point it is necessary to review ideas and to help people re-evaluate what they think and believe.

New programs have their successes and failures. These are reflected best by having people report significant achievements and troublesome problems. This session provides time for reporting on program achievements and difficulties. This time can be used to look ahead and to talk about ways of changing and improving. In reviewing and re-evaluating a developmental approach to the career education of deaf students, the experiences of the past can be utilized more effectively to plan the achievements of the future.

Objectives

This session is directed toward helping the participants to begin to:

1. review and re-evaluate the five components of a developmental approach to career education.

2. report on the nature of their involvement with the career education program.

3. explore the achievements and problems they have encountered in working with one or more of the program components.

4. reassess their own attitudes and beliefs about career development.

Materials Needed

1. List of objectives for Session Ten (prepare a copy for each participant or make an overhead transparency for group showing). See Appendix J-1.

2. "Attitudes Toward Vocational Development" survey (prepare one copy for each participant). This is the same instrument that was administered in Session One. See Appendix A-2.

3. Directions for scoring and interpreting "Attitudes Toward Vocational Development." See Appendix J-2. This information is for the in-service leader only. Instructions for scoring will be given to the group by the in-service leader.

4. "In-Service Self Evaluation" (prepare one copy for each participant). See Appendix J-3.

Personnel Needed

In-service leaders should identify, as early as possible, those teachers who are involved with the various program model components. Leaders should select 1-3 members of the staff to share their experiences with the group at this session. This can be arranged after Session Nine.

Procedures

0:00 INTRODUCE the objectives for Session Ten (5 minutes).

Distribute the list of objectives for Session Ten or show the list of objectives on an overhead projector.

0:05 RE-ADMINISTER and SCORE the "Attitudes Toward Vocational Development" survey (30 minutes).

a. Have each participant complete the survey (15 minutes).

b. Have participants score their survey (5 minutes). Instructions for scoring are provided by the in-service leader. You may wish to list on the blackboard, the items whose responses combine to make the "new" and "old" scores.

c. Pass back the survey forms completed by each participant at the first session and have participants score them (5 minutes).

d. Interpret and discuss the results of the survey (5 minutes).

0:35 Career Education Component PANEL PRESENTATIONS (1 hour 10 minutes). The panel should consist of 1-3 members of the school staff who have been involved with each component topic. While time will, of necessity, be short, ask teachers to share the essence or highlights of their experiences. Where more than one panelist shares a component, they may wish to collaborate.

Encourage panelists to use slides, video tapes, overhead reproductions as well as oral presentations. Variety in panel reports will generate interest and attention. Classroom problems and achievements (successes and failures) are all subject to reporting and review.

a. Gaming panel member (15 minutes).

b. Work function slides panel member (15 minutes).

1:05 BREAK (optional).

1:15 c. Field trip panel member (15 minutes).

d. Career briefs panel member (10 minutes).

e. Values clarification panel member (15 minutes).

1:55 ADMINISTER "In-Service Self Evaluation" form (5 minutes).

Have each participant complete the "In-Service Self Evaluation" form. Participants can remain to complete the evaluation at this time or return the form to the in-service leader at a time to be mutually determined.

Note to Leader

The purpose of this instrument may be viewed as twofold. The items provide participants with a checklist of the learning which is expected, and the responses should be useful feedback for the in-service team of instructors to determine the success of their teaching.

2:00 END OF PROGRAM.

APPENDIX A

Materials for Session No. 1

A-1 List of Objectives for Session One

A-2 "Attitudes Toward Vocational Development" Survey

A-3 Script for slide-tape set "Career Development for Deaf Students--An Overview of a Program"

A-4 "Description of Career Education Program Components"

Session No. I Objectives

The participants will:

1. identify and clarify their own attitudes and beliefs about career development by sharing them with other participants.

2. think about their own involvement with and concern for the career development of deaf students.

3. explore newer concepts concerning the human aspects of career development (vocational learning-maturation).

4. become familiar with several components of a developmental approach to career education.

ATTITUDES TOWARD VOCATIONAL DEVELOPMENT

Name_____ School_____ Date_____

Directions: Below are some common beliefs about the vocational learning and maturation of children and about ways of working with them to enhance their career education. Indicate your position on each item by placing an (x) in the square which best represents the extent of your agreement or disagreement.

ITEM	I agree strongly 4	I agree to some extent 3	I di-agree to some extent 2	I disagree strongly 1	I am not certain 0
1. Helping students to assess their interests and abilities is the major function of the teacher's role in career education.					
2. Children have career preferences as early as first grade.					
3. Young people who exhibit unrealistic career choices should be discouraged from pursuing their goals.					
4. Occupational choice is an event that should occur in the high school or college years.					
5. The career preferences of young people change quickly.					
6. Vocational learning-maturation is a process that lasts throughout life.					

ITEM	I agree strongly 4	I agree to some extent 3	I disagree to some extent 2	I disagree strongly 1	I am not certain 0
7. Young people need to learn how to make decisions as part of their vocational maturation.					
8. Occupational choice is an event that should take place in the senior high school years (grades 10-12).					
9. Teachers must be as concerned with vocational development as with physical, mental, social, or emotional development.					
10. Occupational choice is the act of matching one's interest and abilities with job opportunities and job requirements.					
11. Children in the elementary school need to learn about the meaning and significance of work in life.					
12. Vocational learning-maturation involves compromising the way one sees and feels about one's self with the work world realities.					
13. Choosing a career involves three steps: (1) deciding on an occupational goal, (2) planning how to achieve the goal, and (3) pursuing the goal.					

ITEM	I agree strongly 4	I agree to some extent 3	I disagree to some extent 2	I disagree strongly 1	I am not certain 0
14. Career education relies primarily on presenting accurate and up-to-date information about the duties and requirements of job opportunities in the world of work.					
15. Personal or self considerations of a psychological nature are as important in career development as knowing about the external realities of job demands and requirements.					
16. Teachers must know about work opportunities and requirements before they can communicate about jobs to young people.					
17. Picking an occupation and choosing a mate are the two most important decisions a young person has to make.					
18. Career education should begin in the early years of a child's education with an emphasis on promoting self awareness.					
19. Children in the elementary school cannot deal with decision-making tasks related to their vocational learning-maturation.					
20. Youth should be encouraged to consider only those careers that are realistically consonent with their talents.					

ITEM	I agree strongly 4	I agree to some extent 3	I disagree to some extent 2	I disagree strongly 1	I am not certain 0
21. Young people must recognize the importance of higher education in planning their future.					
22. Teachers should influence children in the direction of wise, realistic career choices.					
23. Teachers should emphasize the relevance of school subjects to the career preferences of children.					
24. An occupational choice is a dynamic, ever-evolving consideration which is subject to constant reappraisal and change.					
25. Vocational development also involves considerations related to one's social and self maturation.					
26. Occupational choice relies mainly on a realistic appraisal of one's abilities and aptitudes with the occupation viewed as a way of using these talents.					
27. Teachers should reinforce and encourage children in any career interests they exhibit.					

ITEM	I agree strongly 4	I agree to some extent 3	I disagree to some extent 2	I disagree strongly 1	I am not certain 0
28. The vocational learning-maturation process must encompass trial-exploratory experiences in which persons can explore their self and self-in-situation.					
29. Students with career aspirations below their level of ability should be encouraged to consider higher level career goals.					
30. Vocational involvement is a reflection of one's self concept with the occupation viewed as a means of implementing that self concept.					
31. People should be left to make their own career decisions when they are ready to do so.					
32. Youth need specific facts about as many occupations as possible.					

SLIDE SCRIPT
for
CAREER DEVELOPMENT FOR DEAF STUDENTS:
AN OVERVIEW OF A PROGRAM

1. Career Development for Deaf Students: An Overview of a Program.

2. Career education is the planned exposure of individuals to the concepts, information and experiences which can facilitate their understanding of their "self" and of their "self-in-situation."

3. Students may have one or two conferences with a counselor to talk about future plans or goals. These conferences commonly involve more discussion of educational plans than occupational opportunities.

4. A "test 'em and tell 'em" approach has evolved whereby tests are used to help students identify their talents and to suggest work tasks.

5. Career guidance has traditionally emphasized matching one's talents --mainly interests and abilities or aptitudes -- with tasks.

6 This does not begin to attend to the many facets of career development which are suggested in the recent research.

7. The concept of a career choice begins early -- one choice that lasts a lifetime is no longer a tenable basis for career education.

8. Career development is a process extending over a long period of time -- perhaps a lifetime.

9. Career development is a series of decisions made over a long period of time. This computer programer may not always remain in the same job.

10. Programs need to emphasize the trial and error connected with career evolution. The skills needed to operate this billing machine could easily be adapted to a large number of other jobs.

11. Career development is concerned with the physiological, psychological, sociological and economic forces impinging on the decisions of an individual as this diagram shows.

12. These are some of the psychological-physiological factors that must be accounted for in career development. You can readily observe, therefore, that career development encompasses more than an assessment of one's interests and abilities.

13. Environmental considerations include a variety of sociological and economic factors. These are the factors external to the individual -- forces which one needs to explore.

14. Career development is experiential in nature. The student needs opportunities to examine work experiences which allow one to explore the "self" in the present as this student is doing and ...

15. ... to relate these experiences to the future - one's "self in vocation." This watch maker is performing the same work function as the boy building the rocket.

16. Career development has a compromising quality.

17. These are the four parameters of career development.

18. A career education program should deal with what an individual knows, thinks and feels and how one behaves. It should have a distinct "here and now" focus.

19. "What am I going to be when I grow up?" is not as important as "Who am I." "Picking an occupation" is replaced by a series of learning-maturation experiences that lead to the evolvement of a career or careers. This student knows he is good at acrobatics.

20. Career education can capitalize on the living and working experiences in the everyday life of an individual. It is a developmental process that provides four types of exposures: informational, conceptual, experiential and self.

21. Informational exposures provide for inputs of a factual nature. Information helps the individual to get knowledge about the world of work. This student is getting information by reading the Career Briefs.

22. Conceptual exposures are designed to help the individual formulate concepts about the world of work. They help the individual to understand more about the nature of work, work functions and work roles. This teacher is discussing a work function slide set with his students.

23. Experiential exposures provide opportunities for individuals to test their feelings and behaviors in real or life-like situations and to observe others at work. These exposures get individuals involved in or close to the actual dynamics of work situations. This student has definite feelings and reactions to laboratory experiments.

24. Self exposures focus on the individual and his "being." They cause individuals to think more specifically about their needs, motivations or values as well as their interests or abilities. The CISAG games provide for these experiences.

25. Becoming aware of how others view themselves and their world can help an individual in distinguishing his uniqueness. It can help an individual in differentiating his "self" from others. One can learn about other styles of being and behaving.

26. This career education program for deaf students has five component strategies: (1) vocational gaming, (2) making field trips, (3) learning about work functions, (4) using career information and (5) clarifying work values and attitudes.

27. The Career Insights and Self Awareness Gaming (CISAG) program was used with deaf students first at the Rochester School for the Deaf

28. There are six games in the CISAG program. (1) Interests Continuum; (2) Life Goals; (3) Life Situations; (4) How I See My Abilities; (5) Data-People-Things Puzzle, and (6) Interests Triangle. These games focus on developing self awareness.

29. The Interests Continuum game offers a new approach for helping young people explore their interests. The game explores major areas of interest.

30. Goals can be a potent factor influencing decisions. The Life Goals game provides an opportunity for students to become familiar with different life goal concepts.

31. Regardless of who we are, we find ourselves in one "situation" after another. That's life -- one situation after another. How we feel, what we think, the way we behave in these situations can tell us much about ourselves. Finding our "self" by assessing our reactions to real life situations is an important part of career development.

32. The Life Situations game introduces thirty life situations. This game can help the players to become more aware of different life circumstances and to think about the way they behave in these situations.

33. Life situations testing can begin with circumstances at home or in school and community life.

34. Students use different abilities everyday. The How I See My Abilities game allows for the identification and definition of human abilities in five major areas.

35. The Data-People-Things Puzzle game helps the players to learn about the three major orientations to work -- data, people and things and to become familiar with the work functions in each orientation.

36. Interests Triangle is a sequel to the Interests Continuum game. This game provides for more intricate discriminations among the major interest areas. For example, in the scientific area, players must distinguish their preferences among life science, physical science and earth science.

37. Field trips is the second component of this program. It offers students a chance to explore different types of work functions as they observe workers in varied environments and differing conditions. These deaf students are visiting an industry to see workers involved in various work functions.

38. The focus of the field trip is on the work functions to be observed. Prior to the trip students discuss what they are going to see, why they are going to see it, how to observe it and what questions they might ask.

39. Students become familiar with the work functions by recording the kinds of work functions they have seen other people doing and the kinds of work they have done themselves.

40. During the field visit, the students look for specific job duties or activities associated with the various work functions. They are also able to feel and smell materials and examine working conditions.

41. Insofar as possible, students get to observe and talk with deaf workers doing different work functions. They have an opportunity to see and learn how the work activities have been modified or how the job situation has been tailored to accommodate a worker with a hearing handicap.

42. With first-hand, concrete exposures to various work functions in their repertoire, students return to their classroom for further evaluation and re-evaluation. They have another opportunity to discuss the insights and understandings they have gained about the different work functions.

43. The third component, the Work Function Slide series, helps students to learn about the ways people work with data, people and things. The Dictionary of Occupational Titles is used to identify and define jobs and work functions.

44. One set of work function slides has been prepared for each of these seven data-oriented work functions.

45. A second set of work function slides has been prepared for each of these eight people-oriented work functions.

46. The things-oriented slide set consists of these eight work function presentations.

47. A Teacher's Manual for each slide presentation has been prepared. The manual introduces the teacher to the work function and suggests activities for using the slide set in the classroom.

48. The need for career information is well known and established. The fourth component is a series of career briefs written especially for the deaf student.

49. Literature and films about occupations and families of occupations abounds. They are prepared for hearing people and do not treat the specific types of on-the-job information which should be of value and of interest to deaf youngsters.

50. The career briefs can be used in a variety of instructional ways. They can be used as supplemental classroom reading, as a basis for classroom discussion or in conjunction with particular academic units.

51. They can be used by individuals who wish to investigate some specific occupation in more detail.

52. The briefs have been carefully prepared to reinforce world of work terms and concepts which have been introduced in other components of the program.

53. One of the most unique types of information contained in the career brief is the Communication Qualifications Profile. The profile suggests the level of communicative skill needed to perform the job in four areas: listening-observing, reading, writing and speaking.

54. Each individual profile provides an analysis of the level of communication needed for the job. The kind of information will be helpful to students not only in reading about potential work opportunities but in examining and assessing their own communication skills.

55. The fifth and last component involves helping deaf youth to think about and clarify those attitudes and values that are associated with work. Helping youth to a better understanding of their work habits, work motivations and work satisfactions is the major aim of this component.

56. Valuing, according to Raths and his associates, consists of three processes: Choosing, Prizing and Acting.

57. The strategies employed in helping deaf students to clarify their work values and attitudes have been adapted from Values Clarification by Simon, Howe and Kirschenbaum.

58. The strategies in this manual help teachers of deaf students to provide valuing activities for their students. It offers specific information concerning the objectives, procedures and content for each suggested strategy.

59. Many areas of the school curriculum lend themselves to the development of topics where relevant work values can be explored. The use of leisure time, occupational change, the role of labor unions and professional bargaining units, consumer credit, the changing role of women in the labor force and worker retirement are illustrative of value laden areas that can be infused in the existing curricula.

60. All facets of human growth are intricately interwoven in the career development process. Mental maturation becomes significant as the individual learns to think by manipulating and processing information in making choices and decisions.

61. Through personal values and identification with the human condition, the individual develops a social identity. As these students try to find their own unique form of the Cat's Cradle, all students try to find their unique self and the personal way of living and working best suited to the expression of that self.

62. Through this long and difficult process, one searches for one's own identity and for ways of sharing this identity with the world. It is to this end that the career education of the deaf student begins.

DESCRIPTION OF CAREER EDUCATION PROGRAM COMPONENTS

Component 1 - Vocational Gaming

The Career Insights and Self Awareness Gaming (CISAG) program consists of six vocational game-like interactions which engage students in self exploration as it is related to various facets of the career planning and choice process. The six games provide a deliberately scheduled opportunity to discover, explore, and assess with a teacher in a classroom setting, individual preferences and feelings regarding interests, life goals, abilities and work function behaviors.

Game materials consist of a flannel board and various adhesively-backed pieces which feature an interests continuum line, a data-people-things puzzle, a set of graph-like bars to show how students see their abilities, triangles and directional markers to indicate strength of preference for a triad of interests, and sets of life goals and life situations cards. These materials are accompanied by a Game Leader's Manual which contains suggestions for developing sound gaming behaviors, for handling the abstract and concrete, and for starting, pacing and sequencing the games. The six Game Guides offer general and specific reminders for each activity, state the purposes of the game and give precise instructions for undertaking each game play. Game play is initiated by an introduction to concepts pertinent to career development and proceeds with student reactions to these concepts. The games foster cooperation and understanding rather than competition to win. Players are encouraged to share their reactions and assessments with other players and the game leader.

A Supplemental Guide to CISAG for Teachers of Deaf Students has been developed so that the games can be adapted for use with deaf students. It includes modifications in the timing, sequencing and scheduling of the games and game play and offers suggestions for adapting the materials to accommodate the problems of communication and concept formation which may be associated with deafness.

The CISAG gaming materials are available from Houghton Mifflin, 110 Tremont Street, Boston, Mass. 02107 or from any of the Regional Sales offices.

Component 2 - Making Field Visits

Helping students to learn about different work tasks and activities through on-the-job observation is considered an important part of the career education program.

Learning About Work, a student field trip manual, provides opportunities for deaf learners to observe and classify work experiences at home, in school, and in the community as well as in business or industry according to the type of work function performed. It has been prepared to facilitate student observations as they visit a variety of places where different work activities can be viewed. Through the field trip, it is expected that students will have a chance to observe and identify different types of work functions. It offers a concrete involvement with work and work tasks which can be effective in helping to build the understandings necessary for grasping the meaning and significance of work and for relating these understandings to their own interests, abilities, work preferences and life goals. Learning About Work contains pre-trip activities which alert the students to the types of observations in which they can engage on the trip and to follow-up activities which can help to reinforce and cement student learning. The student manual contains illustrations depicting the different work functions and a dictionary of work function terms. Questions which may be raised on field trips are included in a special "tear-out" page which students may use as they interview workers during the field visit. A Teacher's Manual for Learning About Work Through Field Trips contains detailed instructions for using the field trip in a total career education program. It suggests ways for organizing a field trip and provides the teacher with detailed information concerning preparation, visitation and follow-up activities. A special list of words has been included to help teachers in associating work tasks or activities with the different work functions under study.

Component 3 - Learning about the Work Functions

This series of slides consists of 23 sets of slides (approximately 50 slides per set) which portray the different work functions as these have been identified by the United States Department of Labor and described in the Dictionary of Occupational Titles (Volumes I and II). The slide sets introduce the students to these work functions as they are related to work associated with data, people, and things. The following chart identifies these 23 work functions and area of work orientation with which they are associated.

Data	People	Things
(0) Synthesizing	(0) Advising	(0) Setting-Up
(1) Coordinating	(1) Negotiating	(1) Precision Working
(2) Analyzing	(2) Instructing	(2) Operating-Controlling
(3) Compiling	(3) Supervising	(3) Driving-Operating
(4) Computing	(4) Amusing	(4) Manipulating
(5) Copying	(5) Persuading	(5) Tending
(6) Comparing	(6) Speaking-Signaling	(6) Feeding-Offbearing
	(7) Serving	(7) Handling

Each of the slide sets depicts a variety of work tasks which are associated with the particular function being studied. The slides emphasize these work tasks as they are encountered in home, school and community experiences as well as in different occupations. By relating the work function to the present home, school and community experiences of students, the slide set provides a "here and now" element to the development of work function concepts.

Component 4 - Using Career Information

The Career Briefs, consisting of a series of forty pamphlets which survey a variety of jobs representing the nine major occupational categories, were developed to provide accurate, current information about existing career opportunities for the deaf. Since most occupational information has been prepared for hearing students, the briefs were specifically designed to meet the informational needs of secondary deaf students. They are written in concise, familiar language infusing game terms and work function concepts from other project components. In addition to a description of the occupation, each brief deals with communication-related difficulties which may be experienced by deaf workers in the specific job. Profiles treating the communication requirements of the work in the expressive (speaking and writing) and receptive (listening-observing and reading) areas of communication are included in each brief. This information allows students to compare the various communication demands associated with the occupation. Illustrations provide a visual input and add to the attractiveness of the pamphlet.

Component 5 - Clarifying Work Values

Helping students to look at the significance of work in their lives involves providing opportunities for them to examine and think about attitudes and values which are associated with work and work situations. As students are exposed to a variety of work habits, attitudes toward work, work conditions and locales, worker motivations and dissatisfactions, and the economics of work, and as they are allowed to think about and react to them, their own self and work understanding are extended. Through this process, what they know and believe about the attitudes valued by the world of work and how they behave can be clarified and more decisively acted upon.

A booklet, Clarifying Work Values: Strategies for Career Education, has been prepared for teachers to suggest classroom activities which offer opportunities for deaf learners to become aware of societal values regarding work and to provide an opportunity for them to choose and act on those values which they regard as important.

The classroom strategies are patterned after Values Clarification by Simon, Howe and Kirschenbaum. It suggests such strategies as the values continuum, rank ordering, and "I wonder" and "What would you do . . ." statements. The values clarification activities are initiated by an introduction to one of the concepts to which students can react and share responses.

APPENDIX B

Materials for Session No. 2

B-1 List of Objectives for Session Two

B-2 "Summary of the CISAG Program"

Session No. 2 Objectives

The participants will:

1. become acquainted with the following CISAG materials for (1) Interests Continuum, (2) Life Goals, (3) Life Situations, (4) How I See My Abilities and (5) Interests Triangle. (Note that the Data-People-Things Puzzle game is introduced in Session Five).

2. consider a wider range of internal factors associated with career evolvement (needs, values, aspirations, motivations, goals, pressures, and aptitudes).

3. differentiate between the internal aspects of "self" factors and the external nature of world of work opportunities in vocational learning-maturation.

SUMMARY OF THE CISAG PROGRAM

The Career Insights and Self Awareness Gaming (CISAG) program is one component of a comprehensive career education package for deaf students. The CISAG program was originally developed for use in hearing schools. It has been used with deaf children since 1971. The recommended modifications for use with deaf students have been summarized in A Supplemental Guide to the Career Insights and Self Awareness Games for Teacher's of Deaf Students.

WHO CAN PLAY?

Any group of 4 to 15 students in grades 4 through college. They explore their own feelings and ideas, sharing them with each other. All this is done in an atmosphere of acceptance and understanding. No one ever loses in these games; everyone wins in the sense that each gains self-awareness.

The interactive, cooperative nature of the games, creatively taps the thinking processes of the players--comparing, critiquing, observing, summarizing, imagining, interpreting--as they engage in decision-making and problem-solving activities.

THE GAMES

1. INTERESTS CONTINUUM. This game is played with ruler-type scale cards and pairs of interest cards (from a list of seventeen placed at each end of the scale. Examples of the pole cards would be Musical, Business, Agricultural, or Mechanical. The players take turns indicating their involvement by placing colored markers at appropriate points along the continuum, and sharing their preferences with classmates.

2. LIFE GOALS. The players become familiar with life goal concepts through three types of exposures. In the "EXPLORATION" plays, pupils discover meanings of goals by choosing Most Important and Least Important goals from among groups of two or three. Examples of life goals are Security, Wealth, Knowledge, and Success. In the "COMPARISON" plays, students pick cards at random which ask for comparison/contrast responses concerning the ten life goals. And in the "LIFE CIRCLE" plays, all players create their own pie charts, using up to five goals--allocating space on the printed circle board with movable arms, to show the importance of each selected goal.

3. LIFE SITUATIONS. A special scale card is used in this game, marked to differentiate between suitability (like-dislike) and attraction (seek-avoid) of situations in which pupils might find themselves in everyday life. Each of the thirty situations (for example, Expressing Your Feelings, or Taking Risks) is posted in turn, and the players assess their behavior in the situation by placing their markers at appropriate points on the scale card.

4. HOW I SEE MY ABILITIES. This series of game plays exposes the players to human abilities most commonly employed. In the introductory session, the leader and players create a puzzle man, exploring together what "Mr. Ebenezer" can do with his eyes, ears, hands, muscles, and so on. The other game plays involve player self assessment, with scale cards and markers, in five major ability areas. For instance, in the Intelligence area, players would rate themselves on verbal, numerical, spatial, and memory scales. The other major areas are Physical Ability, Physical Coordination, Visual, and Spatial Ability.

5. DATA-PEOPLE-THINGS PUZZLE. Divided into three parts, this game is concerned with the three primary work orientations. The players, after becoming familiar with the work functions in each area, show their reactions to the types of work by filling in a circle puzzle. Different-sized pie-segment pieces represent varying amounts of interest in the work function. Examples of functions in the People Puzzle would be Serving, Persuading, and Negotiating.

6. INTERESTS TRIANGLE. This game begins where the Interests Continuum ends, by allowing the players to examine the manner and nature of their expressed interests. Each of eleven major interests would be broken down into three specific categories (for example, the Language area would be subdivided into Speaking, Reading, and Writing). By using triangle pieces for setting up groups of three, pupils use arrows to show the direction and intensity of their preferences, and to explore their utility.

GAME RULES

The games work best when the communication lines are wide open. The Game Leader's Manual, therefore, emphasizes several techniques for encouraging and extending participation. The Manual also helps the teacher to understand the contributions of the game program to "vocational learning-maturation." In fact, the behavioral objectives of each game specifically point to a growing self-identification--the prime component in career awareness.

The Game Leader's Manual also contains suggestions for developing sound gaming behaviors, for handling the abstract and concrete, and for starting, pacing and sequencing the games.

In addition to the Game Leader's Manual, six Game Guides offer specific and general reminders for each activity, state the purposes of the games, and give precise instructions for undertaking each game play. These illustrated Guides indicate game setups, fully describe all the materials involved, and list definitions for terms used in the games.

APPENDIX C

Materials for Session No. 3

C-1 List of Objectives for Session Three

C-2 Script for "Career Insights and Self Awareness Gaming - CISAG - Program Communication Techniques" Training Tape

C-3 "CISAG Gaming Techniques Worksheet"

C-4 "Gaming Techniques Exercises"

Session No. 3 Objectives

The participants will:

1. become familiar with procedures for establishing the conditions or atmosphere for gaming.

2. know the five communication techniques which can be used to facilitate the gaming process.

3. become aware of the problems which they may encounter as they begin to use the five communication techniques in the gaming activities with their deaf students.

SCRIPT FOR CAREER INSIGHTS AND SELF AWARENESS GAMING - CISAG - PROGRAM COMMUNICATION TECHNIQUES TRAINING TAPE

Narrator

The purpose of this film is to help you understand the "Career Insights and Self Awareness Gaming Program" called CISAG, and to let you examine the primary features of your role as game leader. In this film and in the discussion and practice exercises which will follow it, you will become acquainted with the gaming techniques used in the CISAG program.

During the film there are six brief dramatizations in which game leader skills are demonstrated. Your leader has given you a worksheet with headings that correspond to these skills. It should serve as a guide for you to respond to the dramas. Following each drama there will be a short interval so that you can complete your notes.

Several deaf students act as game players in the dramatizations. Their game play responses are very similar to those of intermediate and secondary level deaf students. The audio and video techniques used in these dramas should help you understand the content.

We will begin by characterizing the general features of the CISAG program. CISAG is a fun learning experience. The games are not the usual parlor-type; they are learning games that offer opportunities for thinking and discovering. In these games, players have a chance to explore who they are and how they feel and behave. The CISAG program is non-competitive. Competition in order to win is replaced by cooperation in order to understand. Being "right" or "wrong" has far less significance than being able to express a feeling, a point of view, or an experience. Talking replaces telling and every player is a "winner."

The primary functions of a game leader are (1) to create an atmosphere of acceptance and understanding, (2) to keep game play moving as rapidly as possible, and (3) to facilitate the development of self awareness and career insights by using the five major communication techniques that will be demonstrated in this tape.

A climate of openness is necessary so the players can express their feelings and ideas without the fear of judgments by the game leader or other players. Players must be confident that their statements will be respected. Players will not participate fully in the gaming activity if their contribution is challenged, refuted, judged or ridiculed. Therefore, the game leader must

behave in ways that build an open and accepting climate. Game leaders do this by (1) arranging the players and the game board so that everyone can see clearly and move freely, (2) inviting players to take a game turn but not forcing them to participate; (3) accepting every player's contribution without making a judgment, and (4) encouraging player interaction.

In the following dramatization the leader is trying to build this kind of gaming atmosphere. As you view it, write down specific things that you think the leader did to develop an open and accepting atmosphere. Your worksheet should help you in selecting and recording ideas. Remember that you'll have a few seconds after the drama to complete any notes. As we move to the classroom, the game, Interests Continuum, is in progress; Jan, one of the game players, is taking a turn at the game board . . .

Leader: Jan, would you tell us why you put the indicator next to PEOPLE?

Jan: My friends and family mean a lot to me and I'm always doing something with people. I don t think I'd like to be alone doing something with a bunch of things. I don t like being alone. I don't even like to be in my room alone.

Leader: So you like people and feel better when you're around people.

Jan: Yes.

Leader: Would you like to play, Mark?

Mark: I like being alone sometimes when I don't feel like talking to anyone.

Leader: So you don't like to be around people all the time.

Mark: Yeah, I like people and doing things with them, but once in a while I like to be by myself.

Leader: Kim, would you move closer so that we can all see each other?

Would you like a game turn Jessica?

Jessica: OK . . . People bother me sometimes. I like to work with things by myself - reading, sewing, or drawing pictures.

Leader: So you prefer doing things by yourself.

Jessica: Most of the time.

Leader: Kim, would you like to play?

Leader: Would you tell us why you put the indicator near PEOPLE?

Kim: I like people. I'm kind of quiet, but it was fun to watch people playing this game.

Leader: So you had a good time today?

Narrator

Now take a few seconds to complete your notes.

BREAK

(Complete your notes for the Gaming Atmosphere section of your CISAG Gaming Techniques Worksheet).

Narrator

Developing an open and accepting gaming atmosphere is an on-going task of the game leader and must be maintained throughout game play.

There are five communication techniques that help the game leader to develop and extend player participation. In this way they help also to maintain the gaming atmosphere. These five techniques are (1) listening, (2) reflection, (3) clarification, (4) questioning and (5) seeking examples. Their use enables the game leader to differentiate content which is what players are describing, from feeling which is the way the players feel about what they are contributing. Distinguishing between these two levels, content and feeling, helps the players understand more about their own contributions and the contributions of other players.

The first technique is listening. I am going to use a sign for listening that shows how it is much more than hearing. Listening involves sensing the personal meaning of what an individual is expressing or communicating. It is trying to understand what another person has experienced. Hearing can help in listening, but it is possible to be an effective listener without hearing anything. A person can understand the ideas and feelings of other people by observing behavior, touching, reading signs, and speech, or in some other way. In the same manner it is possible to hear but not listen. "In one ear and out the other" is a saying that describes a person who hears but doesn't try to understand what is being said. Listening, therefore, involves wanting to understand the ideas and feelings of other people and doing this by using every means available.

During the next dramatization, write down the ways in which you think the leader is using the technique of listening with the players.

Leader: OK, Mark.

Can you tell us why you made that choice, Mark?

Mark: I'm interested in art a lot. I like to draw things and paint. Last week I painted a basket for my Mother. Drawing's my favorite. I like to draw people's faces the most. I like to make them the way I see them. Some people have sad faces and some people have happy faces.

Leader: How does it make you feel when you draw someone's face?

Mark: Well, I like it; I'm proud that I can do it. And if the person likes it, it makes me feel good!

Leader: Do you want to play, Jessica?

Jessica: I like to draw sometimes, but I get bored. My favorite things are drama and dancing. In one play I was a maid. There's another play now and, I'm a princess. It's fun to wear costumes and it's a lot of responsibility to learn what to say and what to do. Being in drama makes me feel important and it's fun.

Leader: You said being in drama makes you feel important, how does it make you feel when you dance?

Jessica: It makes me feel free and light. I can feel the beat from music and that helps but I don't need music to dance. In modern dance class we have to do exercises, and they are hard.

Leader: Do you enjoy the exercises?

Jessica: Well, I like doing them, but at night I'm sore all over!

Narrator

Now take a few seconds to complete your notes.

BREAK

(Complete your notes for the Listening section of your CISAG Gaming Techniques Worksheet).

Narrator

The second communication technique is reflection. It is a "mirror" technique whereby the leader restates a player's communication as accurately as possible. Reflection helps players understand what they have said, and it insures that other players understand. Also, it can help to associate what one person says with another concept involved in the game. A reflecting statement can begin with "You mean . . . ," "You believe (or feel) . . ." or "You think . . . ."

In the dramatization that follows write down the ways in which the leader uses reflection.

Leader: Can you tell us why adventure is most important to you?

Kim: I like hiking in the woods and canoeing and sailing.

Leader: You enjoy hiking, canoeing and sailing.

Kim: Especially the chances I took crossing streams and almost tipping over.

Leader: You like taking chances.

Kim: One time our canoe tipped over. We had to go back to the shore and change our clothes.

Leader: That was exciting for you?

Kim: Yes.

Jan: I want to go to other countries and see what they're like. It costs a lot of money to fly in airplanes.

Leader: You want to travel to other places in the world, and you think it would cost a lot of money to do that?

Jan: Yes. And if you're rich you don't have to worry about having a good job and making enough money to be able to do things.

Leader: You think that if you were rich, then you wouldn't have to worry about money.

Jan: Yes. I don't know what kind of job I'll have after school. If my grades aren't high enough I won t be able to get a good job. And I'll need a good job because everything costs so much.

Leader: You feel that you need high grades so you can get a good job and have enough money.

Jan: Yes.

Jessica: Yesterday I did something for the first time in gymnastics, and it was an adventure.

Leader: You did something you've never done before?

Jessica: Yes, it was a good feeling, like I did something hard.

Leader: You felt good about doing something that was difficult.

Jessica: That's right.

Narrator

Now take a few seconds to complete your notes.

BREAK

(Complete your notes for the Reflection section of your CISAG Gaming Techniques Worksheet).

Narrator

The third communication technique is clarification. When the players say something that is vague, the leader can help them express their ideas or feelings more clearly by using clarification. A clarifying statement can begin with "Does this mean . . . ," "Are you saying . . . ," "Have you considered . . ." or "Can you explain what you mean by . . . ." Clarification can help distinguish between several things that a player is saying, and it can be used to differentiate content, which is factual or external information, from feelings, which is internal or personal information.

Watch the next dramatization. Write down the clarifying behaviors that you notice the leader using.

Leader: OK, Mark.

Mark: I think that I'd like to be in charge because the head people are the best. They have big houses and nice swimming pools and things like that. You can't get all those things just by helping people.

Leader: Are you saying that you want to be a leader because leaders have a lot of nice things?

Mark: Well, I guess so. Leaders are in charge and the people in charge always make the most money.

Leader: Do you mean that making a lot of money is important to you?

Mark: I think so.

Leader: Would you like to change the cards?

Kim: Being a leader means knowing what is the best thing to do, and leaders can help solve problems that people have.

Leader: Can you explain what you mean by leaders helping to solve problems?

Kim: Well, all the pollution is a big problem and if I was a leader, I'd know how to get rid of pollution, and I'd show people how to do it.

Leader: Are you saying that you would like to direct other people?

Kim: Yes.

Jan: I think helping people is important because lots of people are sick or hungry or lonely. I'd rather have friends than have a lot of money.

Leader: Are you saying that your friends are sick, hungry and lonely?

Jan: No, my friends are OK. I meant that helping people is more important than money.

Narrator

Now take a few seconds to complete your notes.

BREAK

(Complete your notes for the Clarification section of your CISAG Gaming Techniques Worksheet).

Narrator

The fourth communication technique is questioning. The leader and other players ask questions that allow a player to give more information or explain more fully his beliefs or feelings. Questions can be simple, requiring only a "Yes" or "No" answer, or they can require a longer response. These questions could begin with "Will you describe . . ." or "Could you tell us more . . . ." Players should feel free to refuse to answer any question.

In the next dramatization make note of the use of questioning.

Leader: Why did you make that choice, Jessica?

Jessica: I always want to feel happy and safe, I guess.

Leader: Could you tell us what that means to you?

Jessica: Well, when I'm sad or afraid of something, I get very upset and I can't enjoy doing anything.

Leader: Does this happen very often?

Jessica: No, only once in a while, but when it does, it takes a lot to feel better again.

Leader: Would you tell us what it takes to feel better again?

Jessica: Sure. Usually I talk to my parents or a counselor or a friend and that helps. Then I try to solve any problems myself. Sometimes I find out things weren't as bad as I thought.

Kim: I picked SUCCESS because I like to do something hard.

Leader: Can you explain more about what you mean?

Kim: Well, it always feels good when you finish something that you really want to do - like making it to the top of a hill.

Leader: Is that a goal for you?

Kim: Yes, when I take hikes I always want to make it to the top of the hill.

Leader: Could you tell us what it feels like when you reach the top of a hill or mountain?

Kim: It makes me feel like I really did something.

Leader: Can you describe that feeling?

Kim: I guess I feel tired and happy. I was really worn out, but I was really happy because I did what I wanted to do.

Leader: I guess that's a good feeling for you.

Narrator

Now take a few seconds to complete your notes.

BREAK

(Complete your notes for the Questioning section of your CISAG Gaming Techniques Worksheet).

Narrator

The fifth technique is seeking examples. Like questioning it should be used when the leader thinks players feel comfortable and secure. Leaders can seek examples by asking "Would you tell us about an experience with ..." or "Can you think of a time when ...." Examples allow players to describe their experiences and enable them to separate fact from feeling. Also, examples give players a concrete base for understanding an abstract idea. A concrete example is something to which everyone can relate. It helps players see the relationship between someone's experience and the particular idea being expressed. Sometimes telling about a real life experience helps a player to express a point or describe a feeling.

In the final dramatization watch for the use of seeking examples. Write down the ways you think it is being used.

Leader: Mark, would you tell us why you rated Memory that way?

Mark: I remember most things. I don't forget much.

Leader: Can you give us an example?

Mark: When my Mother asks me to do something, I always remember to do it.

Leader: Can you think of a time when your Mother asked you to do something and you remembered?

Mark: Well, she asked me to clean my room last week and I remembered. And I remembered to tell her about Parents' Day at school!

Leader: Do you want to ask Mark a question?

Jessica: Yes - Mark, do you remember how to spell "Alligator"?

Mark: Let's see ... A-L-I-G-A-T-O-R

Jessica: You left out one "L!"

Mark: Well, I didn't say I remembered everything!

Leader: OK, who wants the next turn?

Jan: Sometimes I forget things so I rated myself in the middle.

Leader: Can you think of a time when you forgot something?

Jan: Yesterday I was supposed to bring my gym clothes to school, and I forgot to bring them.

Leader: How did you feel when you did that?

Jan: Well, I felt kind of bad because I like gym class.

Leader: Can you think of a time when you didn't forget?

Jan: I usually remember to do my homework - I didn't forget anything for today!

Leader: How does that make you feel?

Jan: It makes me feel good.

Narrator

Now take a few seconds to complete your notes.

BREAK

(Complete your notes for the Seeking Examples section of your CISAG Gaming Techniques Worksheet).

Narrator

Developing a good gaming atmosphere and extending player participation using communication techniques are necessities for successful gaming with children and young adults. The atmosphere that was developed in the first dramatization was maintained by the leader's use of the five communication techniques. The task for you is to develop your ability to use a variety of leader skills in the gaming process. The first step is to become aware of game leader behaviors. Your group leader will now begin a discussion in which you can share your (written) observations of game leader skills.

CISAG GAMING TECHNIQUES WORKSHEET

GAMING ATMOSPHERE

1. Arrangement of Players

2. Invitation to Play

3. Acceptance of Player Contributions

4. Encouragement of Player Interaction

COMMUNICATION TECHNIQUES

1. Listening: hearing, sensing and understanding what a player is trying to express. It also involves nonverbal communication such as facial expressions, gestures and tone of voice.

2. Reflection: a "mirror" technique used to restate as accurately as possible the meaning of a player's communication. It can be used to reflect content or feelings. You can reflect by saying, "You believe . . . ," "You mean . . . ," "You feel . . ." or "You think . . . ."

3. Clarification: used to help players explore an idea or feeling and to become more fully aware of what they are thinking and feeling as they do so. Clarification can occur when you respond to a contribution with "Are you saying . . . ," "Do you mean . . . ," "Were you feeling . . ." or "Does this mean . . . ."

4. Questioning: used to help a player talk about or explain an experience, an idea or a feeling in more detail. Questions can be simple, direct, short answer questions such as, "Did you like . . . ," "Would you prefer . . ." or "When did you . . . ." Questions can focus on longer, descriptive responses such as "When that happened, how did you feel?" or "If you had to do this again, what would you do differently?"

5. Seeking Examples: a way of helping a player to express an idea or illustrate a point. It helps to make an abstract idea or feeling more concrete. You can seek examples by saying "Can you tell us about an experience . . . ," "Can you think of a time . . ." or "When have you had an opportunity to . . . ."

More information about these techniques is contained in the CISAG Game Leader's Manual (pp. 8-10) and in the Supplemental Guide to CISAG for Teachers of the Deaf (pp. 8-15).

GAMING TECHNIQUES EXERCISES

Listed after each of the five techniques: (1) listening, (2) reflecting, (3) clarifying, (4) questioning, and (5) seeking examples, are several statements which are typical of student gaming remarks. Try to formulate game leader responses which are illustrative of the techniques

Reflecting

I would not be a good proofreader.

I want people to think I am important.

I do not write unless I have to.

I like to mow the lawn.

I have to take care of my brother or sister.

I can remember things well.

Clarifying

I like to go to parties.

I like to boss my brother or sister.

It is easy for me to tell different shapes.

I do not like language.

My speech is not very good.

I do not want to be responsible for something.

Questioning

I have planned a bulletin board.

I like to grow things in my garden.

I take care of my dog or cat.

I am afraid to climb.

It is easy for me to sell things.

Sometimes I walk in the woods.

Seeking Examples

I like taking risks.

Wealth is more important than prestige.

I am a friendly person.

Math class is easy for me.

I often draw.

I like to work with things, not with people.

While one might consider there to be no "listening" responses, consider what behaviors the game leader might exhibit in order to demonstrate to the game players that in fact the leader is listening.

Earth science is better for me than physical science.

I like to build models.

Family life is important to me.

I am good at working with tools.

I hate school.

The following student statements are for you to formulate game leader responses, attempting to come up with a response for each of the five techniques. You may want to attempt this at your leisure.

I always work best alone.

I like school.

I would like to go to the moon.

I do things fast.

I am good at working with numbers.

I like to be alone.

I always climb when I can.

We need science to live.

It is hard for me to solve problems.

I do not like the math teacher.

Wealth is more important. If I have money I can have security.

I learn slowly.

I drive a snowmobile.

I like to travel, but we never go anywhere.

APPENDIX D

Materials for Session No. 4

D-1 List of Objectives for Session Four

D-2 Script for "Learning to Use the Dictionary of Occupational Titles

D-3 "Practice in Job Classification" Worksheet

Session No. 4 Objectives

The participants will:

1. become familiar with the United States Department of Labor system for classifying and coding occupational titles and work functions.

2. identify job stereotypes and outmoded occupational classifications.

3. identify career opportunities for deaf students.

SLIDE SCRIPT
for
LEARNING TO USE THE DICTIONARY OF OCCUPATIONAL TITLES

1. Learning to use the Dictionary of Occupational Titles.

2. The Dictionary of Occupational Titles is a multi-volume source of occupational information. It uses an occupational classification system developed by the United States Department of Labor.

3. Volume I alphabetically identifies and defines 21,741 different occupations. Almost every job in the American economy is listed in Volume I.

4. This shows how an occupation is defined in Volume I. This is the definition for sociologist. The definitions provide clues to the specific duties or activities of a job.

5. The Department of Labor has coded all the jobs in the American labor force according to these nine broad categories. Each category is identified by a number ranging from 0 to 9. According to their classification scheme, the first number in the code identifies the category to which the occupation belongs.

6. Here are some jobs and their occupational classification code. The sociologist code begins with "0" indicating that it belongs to the professional, technical, and managerial category. The carpenter code begins with "8" indicating that it belongs to the structural work category.

7. Cashier, with the first digit "2" belongs to the clerical and sales category; the manicurist, "3," designates a service occupation; and machinist, "6," identifies that job as a machine trade.

8. The second number represents a division of the category. This shows the division of occupations belonging to the clerical and sales category. All stenographic, typing, filing and related occupations would carry the code "20," information and message distribution occupations would begin with "23." The two digit division is for broad subject matter areas.

9. The division "20" (stenography, typing, filing, and related) includes occupations concerned with making, classifying, and filing records, including written communications. Here are three occupations representative of this group.

10. Here are some examples from division "23" (information and message distribution) which includes occupations concerned with the distribution of information and messages by mail, telephone, telegraph, and in person.

11. This shows the divisions for the structural work category. You will note that not all the numerical divisions have been employed. The n.e.c. in division "89" means "not elsewhere classified," providing for the miscellaneous coding of structural work occupations.

12. These three occupations are in the structural work category as indicated by "8" in the first column. The "0" in the second column of sheet metal worker indicates the metal fabricating division. The "5" in the second column of bulldozer operator indicates the excavating, grading and paving division. The "6" in the second column of floorlayer shows it belongs to the construction division.

13. Now, let's look at the third number. This number represents groups of occupations and provides for the more precise classification of jobs into more specific identifications. For example, the "1" stands for "secretaries"--a grouping in the "20" division. The "0" in the bulldozer operator title represents a group of occupations concerned with the moving of earth materials.

14. This shows the various groupings associated with the "excavating, grading and paving" division (85).

15. Here are groupings associated with the stenography, typing, filing and related division (20).

16. The two-digit occupational divisions are listed in Volume II.

17. The three-digit occupational groups are also listed in Volume II.

18. Now, let's turn to the numbers to the right of the decimal, that is the last three digits of the code. The numbers specify the extent to which an occupation requires a person to work in relation to data (the fourth digit), to people (fifth digit) and to things (the sixth and last digit).

19. Data oriented work is defined as information, knowledge and conceptions. It is obtained by observation, investigation, interpretation, visualization or mental creation. Data is incapable of touch, consisting of numbers, words, symbols or concepts in written or oral form.

20. There are seven work functions associated with data oriented work. Each work function has been assigned a numerical identification. These work functions are arranged from the more complex to the relatively simple. Thus, synthesizing (data) would be considered the most complex of the data-oriented work functions while comparing (data) would be the most simple.

21. Occupational titles involving the synthesizing work function can be identified when the fourth digit is "0." Synthesizing is defined as integrating the analyses of data to discover facts or to develop knowledge, concepts or interpretations.

22. Here are some representative job titles involving the synthesizing work function.

23. Synthesizing work is a part of everyday school life. Students utilize many informational resources in bringing information together to develop a new idea or to express a point of view.

24. These work functions can be related to the "here and now" by taking advantage of the work activities in which students engage at school, at home or as part of their involvement in community organizations and affairs.

25. The coordinating work function involves determining the time, place and sequence of operations or action to be taken on the basis of analysis of data, and then executing these determinations. Occupational titles involving coordinating can be identified when the fourth digit is "1."

26. Most students have had to plan or organize some sort of family or classroom activity as this deaf girl is doing. Students can readily understand some of the types of tasks that are associated with coordinating work.

27. These specific job titles are all coded to the coordinating work function as indicated by the "1" in the fourth column.

28. The analyzing work function involves examining and evaluating data or presenting alternative actions in relation to the evaluation of the data.

29. Occupational titles involving analyzing can be identified when the fourth digit is "2." These job titles identify the analyzing work function with work in the three different categories professional/technical/managerial (0), machine trades (6) and bench work (7).

30. Analyzing is a common work function whether one has experienced it in trying to determine the source of a problem or in attempting to repair a broken object. When given an opportunity, students have a wealth of experiences with the analyzing work function which, when shared, can provide for rich and varied learning exposures. This student is trying to figure out how to fix a broken basketball net.

31. Learning about the work functions should involve having students exchange the feelings that are associated with them. For example, the frustration and despair which this individual has felt with the analyzing function when he could not repair the object needs to be contrasted ...

32. ... with the kinds of satisfactions this individual is feeling as a result of his success with the analyzing function. He is able to repair his broken net.

33. Compiling work involves gathering, collecting, or classifying information about data, people, or things.

34. Compiling work ranges from gathering data to the more intricate and precise operation of classifying it. The wide variety of student hobbies school and leisure time activities as well as other work experiences are excellent sources of examples for studying the compiling work function. This student is showing his rock collection.

35. Here are three job titles associated with the compiling work function. You can identify this work function when the fourth digit is "3." Can you identify the occupational category in which each job title is coded? If you listed professional/technical/managerial, clerical and sales, and bench work you were correct.

36. Computing involves performing arithmetic operations and reporting on or carrying out an action in relation to them. The computing work function can be identified when the fourth digit is "4."

37. Here are three job titles coded to the computing work function. In the Dictionary of Occupational Titles, computing jobs are described as follows: "receives cash," "computes bills," "cashes checks," "marks prices," "computes prices," "marks identifying numbers," "marks part size or model number." Computing work involves the use of numbers and symbols.

38. Working with numbers is a work function with which most students can readily identify. Math teachers have many opportunities to help students understand the different jobs associated with computing.

39. Copying work involves transcribing, entering, or posting data. Copying work is part of an occupation when the fourth digit is "5."

40. Copying offers an opportunity to explore a variety of work situations. For example, copying can be used to examine situations where one has to do the same thing over and over again.

41. These job titles all are coded to the copying work function. They involve transcribing information by hand or by machine.

42. In comparing work, people must make judgments of a functional, structural, or compositional nature--usually requiring looking for differences or similarities in color, size, shape or character.

43. Involvement in comparing work begins very early in life. The young child learns to distinguish differences in size, shape or color. They learn how to distinguish among objects and to differentiate among items using variety of criteria. As they get older, their judgments are honed to finer discriminations until they find themselves ...

44. ... in a job where one of the main activities involves comparing. This woman is comparing prices of bacon in two different supermarket ads.

45. These are job titles where the worker is required to make comparative judgments. The proofreader looks for errors, the egg candler checks for size and color, and the laboratory technician checks for compositional shadings or color changes.

46. The second major work orientation is working with people. There are eight work functions associated with people oriented work. They, too, have been assigned a numerical identification. You will recall that the relationship of a job to working with people is indicated by the fifth digit or the second one to the right of the decimal.

47. Mentoring, or advising, work is defined as dealing with individuals in order to advise, counsel, or guide them with regard to problems they may raise or exhibit. Mentoring work is involved in a job when the fifth digit is "0."

48. These job titles involve mentoring. Students can identify with these occupations since they may have sought advice from a person who helps people with their problems.

49. Students often seek help and direction from their peers. Those who have been in the position of giving or receiving advice have had experiences and feelings which they can share.

50. Negotiating is exchanging ideas, information, and opinions with others to formulate policy and programs and to arrive jointly at decisions and agreements. Negotiating is a type of work that can be characterized by the "bargaining" or compromising activity that is involved in "working through" difficult and complex matters.

51. Young people understand the concept of negotiating rather quickly since most of them have been in situations where they had to bargain. This youngster is trying to work out an agreement with his mother to stay up longer and watch T. V.

52. Homework deadlines can involve a compromise such as the one this student and teacher are negotiating.

53. Older students know what it is to work out agreements concerning the use of the family car.

54. These kinds of experiences can help young people in assessing the negotiating work function. Negotiating is involved in a job when the fifth digit is "1."

55. Instructing is an easy work function concept for students. Instructing involves teaching or training other people. Instructing is involved in a job when the fifth digit is "2."

56. Students understand the instructing nature of the teacher's job. Some have experienced training or teaching others.

57. Work in this category includes training animals to perform or serve as guards or guides. Many young people have a pet they have helped to train.

58. These job titles are representative of jobs where teaching or training is involved. These jobs require an ability to communicate ideas. They may be short term or on-the-job and can involve demonstration or supervised practice.

59. Supervising involves determining and interpreting work procedures for a group of workers. It means assigning specific duties to workers, promoting worker efficiency, and helping to maintain harmonious relations among them. Supervising is involved in work when the fifth digit is "3."

60. Supervisors usually know the job they supervise very well. They can handle almost any problem that may arise. Students who have had experience supervising an activity or task can relate to this function. Here, one student is supervising another in the operation of a snack bar.

61. Diverting is amusing or entertaining others. Students readily identify with this function and its various forms.

62. Dramatics is one of the most popular forms of entertainment. Actors and actresses perform before live audiences in a theater, on television, or before motion picture cameras.

63. Rhythmics is another form of entertainment. Here's a group of deaf students rehearsing a number which will be performed before the public.

64. Some entertainment workers amuse others by displaying physical agility, strength, stamina, daring, or a combination of these.

65. Diverting occupations are varied, finding a commonality only in their entertaining nature. The fifth digit, "4," identifies those occupations having an amusing component.

66. Persuading is influencing others. It is often associated with sales work. It involves work activities assigned to get people to favor a particular product, service, or idea.

67. Work of a persuading nature involves situations where influencing the opinions of another person, meeting new people and being able to think on your feet are common place.

68. These job titles show opportunities associated with the persuading work function.

69. Work opportunities associated with persuading are most common in business and industrial settings. Students can assess their interest in business and their ability to use the powers of persuasion in a variety of activities. Students involved in selling things are familiar with the persuading work functions.

70. Speaking-signaling involves work where it is necessary to talk with or signal to people to convey a message or exchange information.

71. Work activities of a signaling nature involve giving directions or warnings to pedestrians, drivers or machine operators. Signaling utilizes gestures, signs, lights, sounds or other devices.

72. The setting and conditions of speaking-signaling vary widely and range across a number of occupational categories as these representative examples show.

73. Serving involves attending to the needs, wishes, or requests of people or animals.

74. Children become acquainted with the serving function very early in life. They learn to provide services for others at home or in school. This youngester is serving cupcakes to his classmates.

75. Serving work opportunities can range from personal service activities, such as the barber or airplane stewardess, to domestic service, such as a maid or porter.

76. Serving activities include providing for the welfare of animals where feeding, watering, sheltering, exercising, and grooming them are a part of the job.

77. The third major work orientation is working with things. There are eight work functions in this area with numerical identifications ranging from 0 through 7. The relationship of the job to a things oriented work function is indicated by the sixth digit or the third digit to the right of the decimal.

78. Working with things is defined as work with inanimate objects such as substances or materials; machines, tools or equipment, or products. A thing is tangible and has shape, form and other physical characteristics.

79. Setting-up is the most complex work function in the things work orientation. Set-up work involves the placing (or replacing) and the preparing (or dismantling) of equipment and machines. This work includes adjusting machines or equipment by replacing tools, fixtures or attachments so that they can perform their proper function.

80. Set-up work requires a strong interest in machines and motors and involves considerable skill and knowledge. Some students have had experiences of this type in vocational education courses.

81. Other workers are dependent on the accurate judgment of set up workers who plan and organize the sequence of their work routine or who install and adjust their equipment.

82. These job titles involve the setting-up work function. Note the third digit to the right of the decimal. The "0" identifies the setting-up work function as one of the major work functions.

83. Precision work involves the use of the body or work aids to move, guide, or place objects or materials in situations where considerable judgment and very exact movements or measurements are necessary.

84. Precision work tasks are associated with measuring, designing, repairing, cleaning, assembling, fitting, arranging, or fashioning operations. Here are some job titles representative of precision work. Note the numerical code "1" which designates the precision working function.

85. Precision work involves following very exact specifications. This student is preparing a drawing which must be complete and accurate. Experiences such as these help students to assess how they feel about and perform in such situations.

86. Experiences such as this help students to explore their hand and finger dexterity and the eye-hand coordination that are significant in precision work occupations.

87. The operating-controlling work function involves working with machines and equipment to make or process materials and products. Work activities include starting, stopping, adjusting, and observing the functioning of machines.

88. Students learn to operate different types of equipment and machines right in school or at home. In many schools, for examples, some students take responsibility for operating a variety of machines in the classroom or school office.

89. Machine operation and control usually encompasses activities involving the identification of machine malfunctions and the making of necessary adjustments such as replacing worn tools, changing table positions, turning valves, setting dials, moving levers or making other adjustments which control the manner in which the machine performs. This student is replacing a broken needle in the sewing machine.

90. The number "2" designates the operating-controlling work function. These job titles are all coded to this work function.

91. Driving-operating involves the starting, stopping and control of vehicles, machines or equipment which must be steered or guided over a prescribed course in order to make, process or move things or transport people.

92. Children learn about driving or steering vehicles at a very early age. They soon discover how to control the movement of a vehicle.

93. As they get older, they learn how to drive bigger vehicles where signals, traffic regulations and weather conditions must be observed.

94. The transfer of these skills to a variety of driving-operating jobs can be readily understood by the learner. The job titles involve driving-operating.

95. The manipulating function involves the constant or regular use of body members, tools, or special devices to work, move, guide or place objects or materials.

96. Most students have had many kinds of manipulating experiences. They have used their fingers and hands to make, shape, mix, position or examine objects and materials. Rolling, mixing, beating, grinding, pouring, cutting are manipulating processes which are familiar to students of all ages.

97. The manipulating function can be readily observed. In these illustrative jobs of a manipulating nature, note the "4" indicating its manipulating nature.

98. Tending is attending to or observing the functioning of machines or equipment. It is one of the more simple work functions.

99. Workers who tend machines watch them to make sure they operate efficiently and effectively. They may set controls, position or align material in the machine, turn hand levers, step on pedals, or turn switches to stop or start the machine. These job titles are tending occupations.

100. This picture shows a shirt folding machine operator at work. She positions the shirt on the bed of the machine, pushes the button that lowers the folding blade, and inserts the cardboard band under the collar.

101. A machine packager tends machines that perform such packaging functions as filling, labeling, sorting, weighing, wrapping or closing containers.

102. Feeding-offbearing involves inserting, throwing, dumping or placing materials in or removing materials from machines and equipment that are automatic.

103. Feeding, or getting materials ready and into the machine, can involve such activities as unpacking, sorting, counting, dumping, carrying, and lifting. Offbearing, or getting processed materials clear of the machine, can involve packing, filling, clearing, or carrying.

104. This worker is placing tubes in a machine which will be filled automatically.

105. Here a person is removing packages of medicine and placing them in cartons to be shipped to retail stores.

106. Handling is essentially a physical activity requiring the use of the body or other work aids to move or carry objects or materials.

107. These job titles all involve handling.

108. This boy is using a wheelbarrow to help him move a heavy table top from the barn to the house.

109. These two high school boys are shoveling snow as part of their work as church janitors.

110. Perhaps you have already noted the use of the number "8" in many of the job title codes presented. The number "8" designates "no significant relationship" in the work orientation area where it is used.

111. The work function concepts can be an extremely helpful aid in getting career development into the "here and now" for young students. This student is building a model car - precision work.

112. In school, the same student is dissecting a grasshopper - another precision work activity.

113. This process involves the student now. This girl on a tricycle is performing the same work function as . . .

114. . . . this child on a tractor, which is the same work function as . . .

115. . . . that being performed by this boy in the family car, which is the same as . . .

116. . . . the work this operator is performing in this large power shovel.

117. The Dictionary of Occupational Titles first appears to be a formidable document. This presentation shows some of the ways it can be utilized in career education.

118. Intelligent use of D. O. T. in developmental vs. crisis career counseling can help to reduce eleventh hour searching through the want ads for just any available employment.

PRACTICE IN JOB CLASSIFICATION

Read and follow the instructions:

The nine major occupational categories and the code number used to classify occupations in each category are listed below:

Code No.	Occupational Category
0 or 1	Professional, technical and managerial occupations
2	Clerical and sales occupations
3	Service occupations
4	Farming, fishery, forestry and related occupations
5	Processing occupations
6	Machine trades occupations
7	Bench work occupations
8	Structural work occupations
9	Miscellaneous

The category in which an occupation is classified is represented by the first digit in the code number. Classify each of the following occupational titles by assigning the code number identifying the category to which it belongs.

____ Machinist

____ Set Decorator

____ Meat Cutter

____ Geologist

____ Plumber

____ Welder

____ Automobile Mechanic

____ Bricklayer

____ Landscape Architect

____ Civil Engineer

____ Farm Hand

____ Physicist

____ Compositor

____ Typist

____ Dietitian

____ Furniture Upholsterer

____ Geographer

____ Secretary

Read and follow the instructions:

Page 1 list of occupational titles appears below with the correct category code assigned. Check your answers.

6	Machinist	0	Civil Engineer
1	Set Decorator	4	Farm Hand
3	Meat Cutter	0	Physicist
0	Geologist	9	Compositor
8	Plumber	2	Typist
8	Welder	0	Dietitian
6	Automobile Mechanic	7	Furniture Upholsterer
8	Bricklayer	0	Geographer
0	Landscape Architect	2	Secretary

The division in which an occupation is classified is represented by the second digit in the occupational code. Several examples of occupational divisions, as represented by two digits, are shown below for two major categories (1) professional, technical, managerial occupations and (2) clerical and sales occupations.

Professional, Technical and Managerial Occupations

00-01	occupations in architecture and engineering
02	occupations in mathematics and physical sciences
04	occupations in life sciences
05	occupations in social sciences
07	occupations in medicine and health
12	occupations in religion and theology
14	occupations in art
15	occupations in entertainment and recreation

Clerical and Sales Occupations

20	stenography, typing, filing, and related occupations
22	material and production recording occupations
25	salesmen, services

Now classify these occupations according to their proper division.

____ ____	Geologist	____ ____	Landscape Architect
____ ____	Civil Engineer	____ ____	Geographer
____ ____	Secretary	____ ____	Typist
____ ____	Dietitian	____ ____	Insurance Salesman

Read and follow the instructions:

The correct division codings for the occupational titles on page 2 appear below. Check your answers.

0	2	Geologist	0	1	Landscape Architect
0	0	Civil Engineer	0	2	Geographer
2	0	Secretary	2	0	Typist
0	7	Dietitian	2	5	Insurance Saleman

The group in which an occupation is classified is represented by the third digit in the occupational code. Several examples of occupational groups, as represented by three digits, are listed below for three major categories (1) professional, technical, managerial occupations, (2) clerical and sales occupations, and (3) structural work occupations.

Professional, Technical, and Managerial Occupations

001 architectural occupations
003 electrical engineering occupations
005 civil engineering occupations
013 agricultural engineering occupations
017 draftsmen
020 occupations in mathematics
023 occupations in physics
024 occupations in geology
025 occupations in meteorology
041 occupations in biological sciences
077 dietitians
100 librarians
120 clergymen
137 interpreters and translators
141 commerical artists
142 designers
148 sculptors and related occupations
150 occupations in dramatics

Clerical and Sales Occupations

201 secretaries
202 stenographers
203 typists
204 correspondence clerks
250 salesmen, real estate and insurance
290 sales clerks

Structural Work Occupations

800 riveters
810 arc welders
840 construction and maintenance painters and related occupations
853 asphalt paving occupations
861 brick and stone masons and tile setters
862 plumbers, gas fitters, steam fitters, and related occupations

Now classify these occupations according to their proper group.

___	___	___ Geologist	___	___	___ Librarian
___	___	___ Civil Engineer	___	___	___ Commercial Designer
___	___	___ Secretary	___	___	___ Typist
___	___	___ Bricklayer	___	___	___ Insurance Salesman
___	___	___ Dietitian	___	___	___ Botanist

The correct group coding for the occupational titles on page 3 appear below. Check your answers.

0	2	4	Geologist	1 0 0	Librarian
0	0	5	Civil Engineer	1 4 2	Commercial Designer
2	0	1	Secretary	2 0 3	Typist
8	6	1	Bricklayer	2 5 0	Insurance Salesman
0	7	7	Dietitian	0 4 1	Botanist

Now, for further practice try these occupational titles. You can use the category (page 1), division (page 2) or group (page 3) information to help you classify the titles. The session leader will supply correct answers. SAVE this page to use later in the session.

			Missionary				Actuary
			Pipe Fitter				Actor
			Court Reporter				Sales Correspondent
			Arc Welder				Cartographer
			Painter				Geophysicist
			Grocery Clerk				Stonemason Helper

APPENDIX E

Materials for Session No. 5

E-1 List of Objectives for Session Five

E-2 Script for slide-tape set "Work Functions and Everyday Life"

E-3 "Data-People-Things: Definitions"

E-4 "Home, School and Community Activities"

Session No. 5 Objectives

The participants will:

1. become acquainted with the Data-People-Things Puzzle game in the CISAG program.

2. identify and relate home, school and community activities to the various work functions.

SLIDE SCRIPT
FOR
WORK FUNCTIONS AND EVERYDAY LIFE

1. Work Functions and Everyday Life.

2. Tasks, situations or activities in every aspect of living are what life is all about. Through these, one achieves an identity--a feeling of being and a purpose for becoming. This young Sunday School teacher enjoys working with the younger students. She hopes to become a school teacher some day.

3. In most career education programs, the focus is on exposing students to as many jobs as the program can accommodate. Pamphlets, monographs, movies and filmstrips are sources of information about jobs commonly used.

4. This student is looking through some Career Briefs. But the task of presenting all the career options and opportunities is tremendous.

5. The Dictionary of Occupational Titles contains definitions for 21, 741 separate occupations, including Potato Sorters.

6. Relying on knowledge about careers is further complicated by the changing structure of the labor market. Jobs become obsolete and new occupations are created every year. In the latest edition of the Dictionary of Occupational Titles, 6, 432 new job titles were added. Astronaut is not listed and there are other jobs which will be added to a new edition.

7. In a world of change we need to help young people identify with the world of work in their present life experiencing.

8. Learning about the tasks, activities and situations associated with areas of work opportunities is an approach that makes career education a real "here and now" experience.

9. By learning about the tasks, activities and situations associated with work functions, students will be more aware of the type of activities in which they are engaged. As a result, they will be better able to identify these same activities as they apply to different jobs or work situations. These students are learning about A/V equipment.

10. In the work functions slide set component, students see slides of workers on the job. The learning focuses on the nature of specific activities and tasks which are associated with the different work functions. This Laboratory Technician is setting up an instrument for analyzing a substance. It takes time, patience and extreme precision.

11. Students can relate to these tasks or activities by examining their own everyday school, home or community experiences. This student likes to draw model cars in his spare time. It takes time, patience and extreme precision also.

12. By thinking about and assessing experiences which have been a part of their school, home or community life, young people are forming a base for their career building and decision making. This student, driving a tricycle, is already performing work functions.

13. Helping students to identify and become involved with their own experiences early is a way of accommodating the continuous, on-going process aspects of career evolvement. Operating a motorcycle involves the same work function as riding a tricycle.

14. As students react and feel, they begin to assess and evaluate their reactions and feelings. Home activities such as cooking can be incorporated into the career education process.

15. Avocational involvement provides many opportunities to discover tasks, activities and situations of life in real and meaningful ways.

16. Activities, such as gathering wild plants, taking care of animals, exploring caves, collecting dolls, coins, autographs or stamps, represent other types of avocational learning.

17. Avocational activities can occur in the home, the school or the community. Some people are active in community activities such as paper drives or ecology projects and others become involved in activities associated with religious, service or social organizations.

18. Art and music activities involve tasks and situations akin to those in occupations employing the same talents and skills.

19. In the home, chores have to be done. Some are seasonal, like mowing the lawn or shoveling snow. Others are routine and regular like preparing meals, making beds or vacuuming the home.

20. Whatever the task or situation, it is quite apt to be considered work. Home chores and other work involvements can be significant in understanding the world of work.

21. The many community volunteer and service tasks in which people of all ages participate are another rich dimension of student experience.

22. As students become older and eligible for employment, they have experiences for which they are paid. These, are real experiences. However, think how many real and valuable experiences can be lost if we rely only on actual job experiences.

23. Even the work experiences of older students have limitations. Many different work activities are closed by labor regulations or age restrictions. Then, too, most people can work only one job at a time.

24. A viable career education program has to capture the essence of all the learnings which can and do occur in the home,

25. the school,

26. and the community.

27. In a series of twenty-three slide presentations, students learn about tasks, activities and situations associated with data, people and things.

28. By helping students to grasp the concepts of each work function, they can learn to associate the different activities that are a part of their lives with opportunities and requirements that are a part of the working world. This student is playing the CISAG Data Puzzle game.

29. Exposure to activities associated with data, people and things helps students to learn about and distinguish among various situations and tasks involved in working and playing. Since so much of school life is data-oriented, let's examine the activities and work functions associated with data first. Here are students watching and discussing a data slide set.

30. There are seven slide sets--one for each data-oriented activity.

31. A Teacher's Manual has been prepared for each work function slide set.

32. The Teacher's Manual provides a Definition and Description of the work function to aid the teacher in formulating a concept about the function to be introduced. It alerts the teacher to the nature and scope of work and play activities associated with the function.

33. Behavioral objectives, materials needed and different vocabulary words are identified for the teacher's consideration in planning.

34. Procedures for introducing and presenting the slide set are provided, including a caption-picture guide. This frame-by-frame description helps the teacher to identify elements of the picture as they are shown or to relate to various tasks and activities associated with the work function.

35. Specific follow-up activities are suggested to help reinforce and expand the learnings. In some instances, this involves specific activities that are a part of the work function. Others involve the students in other career education components such as playing one of the CISAG games, making a field visit or reading a career brief.

36. Taking time to properly introduce the slide set is imperative. Pre-showing activities are necessary to help the students become familiar with the work function concept.

37. The learning exposure helps students to formulate a broad concept of the work function and to define the function in the abstract. For example, they learn that compiling involves gathering, classifying and organizing information or things. Here a student has brought in his coin collection to show his class.

38. The students are able to relate the function to activities of a similar nature in their own life. For example, a student who has a collection can describe how the items in it were gathered, classified or organized.

39. Students learn from each other. Their conception of the work function is expanded as others share their experiences.

40. Teachers may use their own creative ideas to introduce the slide set showing.

41. Teachers should preview the slide set before it is shown to the class.

42. Previewing provides an opportunity for the teacher to become familiar with the tasks, machines and work settings that will be shown.

43. The slide presentations use captions to introduce an idea and pictures to show everyday living world of work examples. Here's a sequence from the compiling slide presentation.

44. In this sequence, a second caption is used to help the students relate the abstract nature of an idea with a concrete life activity.

45. This picture shows the ingredients which have been collected for a cooking project, a compiling task.

46. This picture shows a woman combining the ingredients in a cooking activity. This picture helps the students to examine and relate the compiling nature of the activity in a sequence of work functions.

47. This picture of the finished product, a loaf of bread establishes the concrete nature of the activity and builds a base for the next slide.

48. In this picture of a cook making lasagne, the student is helped in transferring the notion of studying recipes and selecting ingredients to the occupation of cook.

49. Teachers should encourage student involvement. Students can ask questions, seek explanations and clarifications, or relate experiences.

50. The slide presentations should be considered basic learning exposures which students can use to assess their own activities as well as those of workers. This girl will have little difficulty associating her math assignment with the computing work function.

51. A program of career education should help students to transfer learnings. For example, the arithmetic or mathematics teacher can emphasize the computing activities associated with the course of study in their class.

52. By helping students to relate life activities to the concepts of work functions, student understandings of the various work functions can be reinforced and expanded. This laboratory experience combines precision work with the computing work function.

53. The data-oriented slide sets could be used in particular academic or vocational education courses. Analyzing and synthesizing could be used in a science class or in several science classes over a period of time.

54. There are eight slide sets in the people-oriented work functions series.

55. This series of slides is particularly important since many of the activities involve both receptive and expressive communication skills. Opportunities for the deaf student in these types of activities are often left unexplored because of the difficulties--both real and imagined--in finding employment. Educators of deaf students need to be aware of these situations.

56. Although fewer deaf people may be currently employed in people-oriented jobs, the opportunities for employment and the possibilities for modifying or "tailoring" job activities to accommodate deaf people should be explored. These National Technical Institute for the Deaf students are involved in the amusing work function.

57. The slide sets contain a number of references to activities that help a student to relate the work function and life situation. The people-oriented slide series emphasizes activities associated with meeting new people, influencing the opinions of others, or directing an activity.

58. The slide sets provide an opportunity for students to become aware of the suitability of an activity and the degree of its attractiveness--that is the extent to which they like and seek or dislike and avoid such activities. This boy knows how well he likes to perform before the public.

59. Showing the slides provides a structure for learning about the work functions within limited parameters. Students dealing with the negotiating work function, learn more about the concept of negotiating and to identify with selected tasks of negotiating work.

60. Since speaking is such an important part of people-oriented work, this slide series provides opportunities for students to think about how they deal with situations where speaking intelligibly or other forms of communication are essential.

61. There are eight slide sets in the things-oriented work functions series.

62. In showing the slide sets, post-viewing activities are important. Many questions, concerns, reinforcement and clarification is a vital part of the learning experience.

63. The Teacher's Manual suggests a number of post-viewing questions. The questions deal with personal feelings and reactions rather than factual information.

64. As the students deal with these questions, the teacher is able to ascertain the nature of the insights and the understanding which have been triggered by the slide showing.

65. Follow-up activities can help in clarifying and expanding the concepts which emerge from the learning exposure.

66. Inviting a deaf worker to talk with the class about the work function activities provides first hand information.

67. Playing the CISAC puzzle board game involving the work function under study is another fruitful follow-up experience.

68. This student, having just viewed the driving-operating slide show, is now reading the career brief on truck driver.

69. These students are planning a field visit to a local industry to observe workers engaged in things-oriented work.

70. Like many other subject matter areas, one has to develop a basic vocabulary in order to understand better what is going on. It takes time to deal with the work functions concepts and requires a willingness to accept gradual progress.

71 Teachers have found it possible to show the slides a second time and some students may elect to look at the slide presentations a second time by themselves.

72. With each new experience, whether it be at school, at home, in the community or at work, students are adding inputs upon which they will draw when choices or decisions must be made. Knowing about work activities and understanding one's self in relation to them can go a long way in making the task of decision making easier.

DATA-PEOPLE-THINGS: DEFINITIONS

I. WORKING WITH DATA (4th digit in D. O. T. code number)

Working with information in the form of ideas, concepts, or numbers.

Code	Function	Definition
0	Synthesizing	Bringing information together from a number of sources to form new ideas or to discover new facts.
1	Coordinating	Bringing information together to improve work communications or operations.
2	Analyzing	Examining and evaluating information.
3	Compiling	Gathering, organizing, or classifying information.
4	Computing	Using arithmetic operations in working with information.
5	Copying	Transcribing, entering, or posting information.
6	Comparing	Making judgments about the differences or similarities of information.

DATA-PEOPLE-THINGS: DEFINITIONS

II. WORKING WITH PEOPLE (5th digit in D.O.T. code number)

Working with human beings or with animals as if they were human.

Code	Function	Definition
0	Advising	Dealing with individuals in order to advise, counsel, or guide them (legal, scientific, clinical, spiritual, or other concerns).
1	Negotiating	Exchanging ideas, information, and opinions with others to formulate policies and programs; arriving jointly at decisions, conclusions, or solutions.
2	Instructing	Teaching or training others (including animals) through explanation, demonstration, or supervised practice.
3	Supervising	Determining or interpreting work procedures for a group of workers, assigning specific duties to them, maintaining harmonious relations among them, and promoting efficency.
4	Amusing	Amusing or entertaining others.
5	Persuading	Influencing others in favor of a product, service, or point of view.
6	Speaking-Signaling	Talking with or signaling people to convey or exchange information.
7	Serving	Attending immediately to the needs, wishes, or requests of people (or pets).

DATA-PEOPLE-THINGS: DEFINITIONS

III. WORKING WITH THINGS (6th digit in D.O.T. code number)

Working with objects, substances or materials; with machines, tools or equipment; with products.

Code	Function	Definition
0	Setting Up	Setting up or adjusting machines or equipment to restore, improve or change their performance.
1	Precision Working	Using your body or work aids to work, move, guide, or place objects or materials in situations where considerable judgments and very exact movements or actions are necessary.
2	Operating-Controlling	Controlling and adjusting the progress of machines or equipment designed to fabricate and/or process objects or materials.
3	Driving-Operating	Starting, stopping, and controlling the actions of machines or equipment for which a course must be steered, or which must be guided, in order to fabricate, process, and/or move things or people.
4	Manipulating	Using body members, tools, or special devices to work, move, guide, or place objects or materials.
5	Tending	Starting, stopping, and observing the functioning of machines or equipment.
6	Feeding-Offbearing	Inserting, throwing, dumping, or placing materials in or removing them from machines or equipment which are automatic.
7	Handling	Using your body or other work aids to work, move, or carry objects or materials.

HOME, SCHOOL AND COMMUNITY ACTIVITIES

DIRECTIONS: Through this worksheet you will have an opportunity to relate home, school or community activities in which students might engage to the twenty-three work functions. Illustrative activities are provided for each work function to get you started. Add your examples in the space provided.

DATA Work Functions	Related Home, School or Community Activities
Synthesizing	express a new idea in writing (poem, play, story); design something new;
Coordinating	organize tasks to get ready for a party; plan an assembly program;
Analyzing	figure out a new way to do something; determine the best material to do a job;
Compiling	collect objects (rocks, dolls); file papers;
Computing	make change; weigh items;
Copying	copy information in a notebook; address cards (letters);
Comparing	match paint (materials); sort stamps (coins);

PEOPLE Work Functions	Related Home, School or Community Activities
Advising	give a friend advice; explain a rule to a friend;
Negotiating	listen to both sides of an argument; bargain with a teacher on a homework assignment;
Instructing	teach a skill; train an animal to do tricks;
Supervising	direct a class project; enforce a school (safety) rule;
Amusing	play sports (basketball, soccer, tennis); perform a trick (stunt);
Persuading	sell something to friends/neighbors; model new clothes
Speaking-Signaling	guard property, sound an alarm;
Serving	taking sick people's temperatures; pass out programs;

THINGS Work Functions	Related Home, School or Community Activities
Setting Up	set up machines (movie/slide projector); lay-out materials for a sewing project;
Precision Work	make a fine adjustment on a machine (saw, microscope); make a very detailed map;
Operating-Controlling	start (stop) a machine; watch gauges (dials, valves) on a machine;
Driving-Operating	steer a tractor or snowmobile, mowing the lawn
Manipulating	scrape (grind, stretch) an object; assemble a new bike
Tending	watch a machine run; push buttons (levers) on a machine
Feeding-Offbearing	stack (straighten) paper for a mimeograph machine; take materials from a machine;
Handling	carry groceries; shovel snow (dirt);

APPENDIX F

Materials for Session No. 6

F-1 List of Objectives for Session Six

F-2 "Curricular Opportunities"

Session No. 6 Objectives

The participants will:

1. become aware of the work function slide series and its possible uses in the curriculum.

2. identify curricular opportunities for using each of the 23 work function slide sets.

3. be able to relate the work of the school classroom to the activities of the working world and everyday life.

4. determine when to use the work function slide sets appropriately in a classroom lesson.

CURRICULAR OPPORTUNITIES

DIRECTIONS: The intent of this exercise is to identify units of study or activities within the school where teachers or other school personnel might use any one of the work function slide sets appropriately. The worksheet has been organized according to the three major work orientations. Examples of curriculum opportunities to use the work function slide sets in the school program are provided to help you get started. Add your examples in the space provided.

DATA Work Functions	Curricular Opportunities
Synthesizing	preparing a report (English); creating a poster (art);
Coordinating	planning the school yearbook (English);
Analyzing	laboratory experiment (science);
Compiling	sewing (home economics); metal project (industrial arts);
Computing	banking (mathematics);
Copying	typing (business);
Comparing	Conditions in North and South during Civil War (social studies); pre-revolutionary and contemporary life (social studies); red and white blood cells (science); rocks unit (science);

PEOPLE Work Functions	Curricular Opportunities
Advising	mental health unit (social studies, psychology, science);
Negotiating	labor unions (social studies); current events (social studies)
Instructing	education (social studies);
Supervising	shop management (industrial arts);
Amusing	drama (language arts);
Persuading	sales (business); debate (speech, social studies);
Speaking-Signaling	safety (industrial arts); communication (speech);
Serving	child care (home economics);

THINGS Work Functions	Curricular Opportunities
Setting-Up	machine set-up (shop, home economics, business);
Precision Working	dissecting projects, using microscope (science); hand tool projects (shop, home economics);
Operating-Controlling	machine malfunctions (shop, home economics);
Driving-Operating	transportation (social studies); agricultural vehicles (technical arts);
Manipulating	bending glass tubing (science); using hammer, sander, hand tools (industrial arts); mixing and shaping dough (home economics);
Tending	automated machine use (shop, home economics, business);
Feeding-Offbearing	machine operations (print shop, home economics, business);
Handling	clean-up, sweeping, picking up (industrial arts); doing dishes, stocking shelves (home economics);

APPENDIX G

Materials for Session No. 7

G-1 List of Objectives for Session Seven

G-2 "Field Trip Information Sheet"

G-3 "Community Survey"

Session No. 7 Objectives

The participants will:

1. become familiar with the field trip technique as a means of reinforcing and expanding work function concepts associated with data-people-things work orientations.

2. become aware of work settings in the community where field trips can be made.

3. become sensitive to employer feelings as they relate to the employment of the deaf or to the accommodation of work routines for the deaf employee.

Field Trip Information Sheet

Company _____ Date _____

Address _____

Name of Representative _____

Telephone Number _____

Is it possible for your company, or certain departments within your company, to serve as a field trip site? Yes _____ No _____

If you are unable to help us and have so indicated by checking "No," please sign your name above and return this questionnaire to us in the enclosed stamped, self-addressed envelope.

If you checked "Yes," please complete the remainder of this questionnaire and return it to us in the enclosed stamped, self-addressed envelope.

In the remaining questions we hope to identify the different work functions which our students will be able to observe at your company. Many of these work functions may be carried out at any level of your operation, including production or administration. These work functions may overlap in any particular job. Right now, we are mainly concerned with identifying those which you feel our students will be able to observe.

For each of the areas about which we are seeking information, there are two columns. In Column 1, on the left, place a check mark (X) if you feel the work function can be observed in one or more jobs during a field trip. In Column 2, on the right, place a check mark if you have a deaf person employed who can be observed carrying out the work functions.

PART I: Work Functions Involving the Use of Data (working with information in the form of ideas, concepts, words, or numbers)

COLUMN 1 Observable			COLUMN 2 Deaf Worker
_____	Synthesizing:	Bringing information together to form new ideas or facts	_____
_____	Coordinating:	Bringing information together to improve communication or operation	_____
_____	Analyzing:	Examining and evaluating information	_____
_____	Compiling:	Collecting and classifying information	_____
_____	Computing:	Performing arithmetic operations	_____
_____	Copying:	Transcribing or entering information	_____
_____	Comparing:	Judging the differences or similarities of information	_____

PART II: People Functions (working with human beings or animals as if they were human)

COLUMN 1 Observable			COLUMN 2 Deaf Worker
_____	Advising:	Advising, counseling, guiding people	_____
_____	Negotiating:	Exchanging ideas to arrive at joint decisions	_____
_____	Instructing:	Teaching or training others	_____
_____	Supervising:	Determining, assigning duties, maintaining harmony	_____
_____	Amusing:	Entertaining people	_____
_____	Persuading:	Influencing people in favor of a product, service, or point of view	_____
_____	Speaking-Signaling:	Talking with and/or signaling information to people	_____
_____	Serving:	Attending to the needs or requests of people	_____

PART III: Work Functions Involving the Use of Things (working with objects, materials, machines, tools, products)

COLUMN 1 Observable			COLUMN 2 Deaf Worker
_____	Setting-Up:	Adjusting machines to improve or change their performance	_____
_____	Precision Working:	Using body members or tools to move or place objects accurately	_____
_____	Operating-Controlling:	Controlling and adjusting the progress of machines for processing materials	_____
_____	Driving-Operating:	Starting, stopping, and controlling machines for processing or moving materials or people	_____
_____	Manipulating:	Using body members or tools to work, move, place or guide objects into proper position	_____
_____	Tending:	Starting, stopping, and observing the functioning of machines	_____
_____	Feeding-Offbearing:	Inserting or removing materials from automatic equipment	_____
_____	Handling:	Using body members to lift, carry, push or pull objects	_____

PART IV: Other Questions

Will it be permissible to talk with the workers?

(I will provide whatever interpretation is needed)

Yes _____ No _____

Will it be permissible to videotape and/or take pictures of workers on the trip? Such tapes and photographs would provide valuable materials for classroom follow-up activities.

Yes _____ No _____

Whom should we contact to make arrangements?

Name Telephone number

What special arrangements would you require and how would you prefer that we carry these out?

If at some future date the students desire additional information about these work functions, may I contact you about the possibility of sending a representative to speak to the class?

Yes _____ No _____

What other comments or suggestions regarding special regulations for visitors do you have for us?

SAMPLE LETTER FOR LOCATING COOPERATING INDUSTRIES

Director of Personnel
ABC Company
123 Industrial Park
Pleasant City, New York 14626

To Whom It May Concern:

This year our class is studying about careers for deaf people. This study involves learning about the world of work through exposure to the many tasks workers perform in relation to working with data, people, or things. These work functions have been summarized in the Dictionary of Occupational Titles (DOT) which classifies every known job in the American labor market. We are anxious to engage our students in an exploration of these work functions.

Numerous classroom activities have been planned to assist students in acquiring an understanding of these work functions. We want to provide some out-of-class activities which will take students into the world of work where they can see these work functions being performed. We feel this experience offers a very important learning opportunity for the deaf student.

We are seeking the cooperation of your company as a possible site for one or more class field trips. It is with this intention that I seek your response to the questions on the attached information sheet. This may help you to get a better idea of the types of work we want our students to observe. It should help you also in arranging for our visit.

We would appreciate your earliest possible response. If you have any questions about our plans, please call the ( ) School for the Deaf at (telephone number), and leave word for me to call you. If you are able to participate, we will call you to arrange a specific date and further plans.

Thank you for your consideration. We sincerely hope you will be able to cooperate in this educational endeavor.

Sincerely yours,

Attachment:
Field Trip Information Sheet

COMMUNITY SURVEY

Industry/Business	Description	Work Orientations			Employ Deaf Workers		Curriculum
		Data	People	Things	Yes	No	

APPENDIX H

Materials for Session No. 8

H-1 List of Objectives for Session Eight

H-2 Script for slide-tape set "Developing and Using Career Briefs"

H-3 "Career Opportunities for Deaf Students Series"

Session No. 8 Objectives

The participants will:

1. become aware of four communication skills as they have an impact on the career choice process of deaf students.

2. explore ways in which they can use the career brief component in their classrooms and learning resource centers.

3. develop insights concerning the career information needs of deaf youth.

SLIDE SCRIPT
for
DEVELOPING AND USING CAREER BRIEFS

1. Developing and Using Career Briefs.

2. Deaf students, like their hearing peers, need information about the world of work and its many significant work opportunities. While an abundance of career information is available, very little of it has been prepared with the young deaf student in mind.

3 Sound films having occupational information have been captioned helping to fill a vast void. Yet, it is important to remember that these films have been produced to meet the needs of hearing people.

4. Deaf students should have career information that is tailored to their needs. This means that materials should be available which go beyond describing the activities involved in an occupation. They need information which covers the problems and pitfalls which the deaf worker can encounter in different fields of work.

5. Many of the problems with which deaf workers must cope center around the communication demands of work in both the receptive and expressive dimensions.

6. Considering the pervasive nature of the communication problem for the deaf person, it is little wonder that he approaches career exploration with attitudes of frustration and despair. Such feelings do not reflect hope and optimism nor do they encourage and challenge the adolescent deaf.

7. The career briefs component is the first known attempt to describe different occupations specifically for deaf youth.

8. Career information for the deaf should detail realistically the communicative demands of a job as well as the skills and understandings needed. Such information should serve to excite and challenge the young person and help to stretch his hopes and aspirations. Informational input from deaf educators as well as deaf workers from all over the country was utilized to compile the receptive and expressive profiles used in the career briefs.

9. It is doubtful if any piece of career information can do this job alone. Parents, and particularly teachers, play an important role in helping to motivate young people and to encourage them to explore and consider many different types of jobs.

10. The significant and vital role of the classroom teacher cannot be replaced even though many classroom teachers feel their "accountability" rests with their instructional responsibilities. Their potential for expanding occupational horizons and for encouraging and supporting youth in the exploration of careers is unquestioned, yet untapped.

11. The career brief is one type of program material that can be of real benefit to the classroom teacher.

12. The career briefs treat different types of occupational activities. All of the briefs are coded to the Dictionary of Occupational Titles, so that its occupational category and work function can be quickly identified

13 Most of the briefs relate the work activities to the data-people-things work functions. For example, this brief highlights the manipulating functions of the meat cutter and the precision working functions of the butcher.

14. More specific information about the kinds of work involved in the occupation are provided in each brief. This is a page describing the nature and functions of a welder.

15. Most of the work activity descriptions are brief, providing enough information to orient the student to the occupation and to help him decide whether or not he wants to pursue it further.

16. The working conditions and hours of work are covered. This information, while not detailed, is sufficient to typify the physical surroundings and place of employment.

17-18. Even though the career brief series is incomplete, all work is viewed as having dignity. In this brief, the work of the laborer is described in five different occupational categories.

19. The career brief series has been prepared with other components of career education in mind. This page from the brief on geographer refers to a variety of situations, interests and abilities that students have been exposed to in the Career Insights and Self Awareness Gaming program.

20. Perhaps you noted that section of the page which indicated that a geographer should "have an interest in earth sciences." This student, having played the Interests Triangle game, has become familiar with this term and has had an opportunity to explore his interest in this area.

21. This student is playing Life Situations and working with the concept of attending to detail. This situation was listed in the career brief on geography.

22. Having some spatial ability was also listed. Students, like this one, who have played How I See My Abilities will be familiar with this term. Having explored his ability in this area as a part of the game should help him in understanding better the work and interests of a geographer.

23. While students need information such as that provided by the career brief series, the process of assimilating and relating it to other aspects of their selves, is a day-by-day, year-by-year activity. Much of this can occur in the classroom where students have an opportunity to test their "self-in-situation." Simple tasks such as working with maps, as shown in this social studies class can have implications for work functions in many careers.

24. The teacher can be the connecting force that helps the students to link their experiences in the classroom with opportunities in the world of work. Using the career briefs in connection with a class project or unit can help young people make relationships that expand their understanding of the world of work and pack potential for possible career building.

25 Sometimes student interests are discovered quite by accident when a student brings a significant possession to school, makes an inquiry, or shares an experience. What happens at this point depends on the teacher's interest in career education and the time they are willing to spend.

26. Picking up the clue that this student liked working with rocks and minerals, this teacher encouraged the student to exhibit his collection and to share his information and feelings with the class.

27. It was only one short step from discussion of the rock collection to a review of the career brief on geology. In this case, these students are exploring together an interest in geology.

28. There's a "here and now" flavor to career education that is often lost when we approach it with "plan ahead" activities. While the career briefs cause students to think about the future, there is much in the briefs they can evaluate now. This page from the engineering brief suggests a number of areas that can be considered "here and now."

29. Most teachers can easily identify opportunities to incorporate career information in their classroom. For example, the social studies teacher can identify occupations in history, government, economics or sociology covering a variety of occupational categories. The science teacher can work with opportunities in the physical, life or earth science careers.

30. On the other hand, incidental or casual reference to careers in any class is only the beginning. Getting into the dynamics of a job--the work activities, worker requirements, or the conditions of work--is a more involved task. Teachers have "accountability" concerns, often feeling that taking time to work with career briefs is an infringement on time needed to cover more important subject matter.

31. Using the career briefs in the classroom rests largely on the combined commitment of the administrators and teachers to incorporate career information in the instructional program. They should get together to discuss instructional priorities and commitments.

32. Teachers often need someone to help them locate career materials and information or they may want to discuss ideas or techniques with someone who has some experience. Schools should have a counselor or a career education specialist who can help them plan and arrange these learning experiences. This counselor has arranged for a beautician to demonstrate for the class.

33. The career briefs represent the most definitve, detailed description of work opportunities in the program. They are repeatedly suggested as follow-up exposures for field visits or work function slide presentations. These students, having seen the slide set on precision working, are reading career briefs about occupations where precision working is one of the major work functions.

34. Most of the career briefs provide general information concerning preparation requirements. Students are referred to the principal or counselor for more specific, detailed information.

35. Schools should have a college catalog file containing information about institutions of higher education and the kinds of programs they offer. These sources are essential as supplements to the information contained in the briefs.

36. A directory such as this one, A Guide to College/Career Programs for Deaf Students, can be used to provide more supplementary information about higher education possibilities and for obtaining more specific bulletins and program brochures. Students should be made aware of these directories and how to use them.

37. Where to store and maintain career information is a decision each school must make. The library is one location where the materials can be made available readily.

38. Materials can be displayed where they will attract students who may be browsing.

39. This school has elected to keep their career education materials in the Learning Resources Center.

40. Where schools can afford multiple copies of career briefs, teacher reference and use can be facilitated by providing them with briefs related to their courses of study.

41. It may take several months before the students will initiate inquiries about careers on their own. Keeping them constantly aware of the availability of this information is an essential ingredient of the program. Bulletin boards built around career brief occupations is one way to foster their use and extend student awareness.

42. The most unique aspect of the career brief series is the attention directed to the various communication skills as they are and can be experienced on the job.

43. Not every aspect of communication in a job can be mentioned. Rather, it is intended to highlight the various ways communication is necessary in the work. The overall description of communication requirements, such as the one you are viewing, serves as introductory information to the profile pages.

44. Four communication skills are described and rated individually in each brief. These descriptions help to make the students aware of the different communication skills which are used in a given job. The ratings orient the student to the general quality of communication that is required on the job.

45. Each area of communication has been rated after considering how it is needed or used in the occupation. This page profiles the level of listening-observing skills suggested for an automobile or aircraft mechanic. It is rated at level 3 meaning that the worker must be able to understand communication with supervisors and co-workers and must be able to detect warning sounds or machine malfunctions.

46. This page from the brief on plumber and pipefitter indicates a level 2 rating meaning that the work requires little communication with others.

47. Each page contains a profile and a description concerning the level of skill that is required. The written description provides information and the scale offers an immediate visual picture.

48. A second form of receptive communication, reading, is also profiled. Here you see the profile and description of reading used in the plumbing and pipefitter brief.

49. This shows the reading profile and description for geographer. The profile rating of "6" provides the student with a visual means for interpreting the high level of technical reading required.

50. Turning to the expressive forms of communication, this page from the career brief on mason and plasterer shows the profile and description for speaking. As the description indicates, very little speaking is necessary and the job is rated at level 2.

51. This page from the brief on dietitian shows higher skills in speaking required since the dietitian spends a lot of time directing other people.

52. The other expressive communication skill, writing, is described in the same fashion. This page is from the brief on engineering.

53. And this page is from the brief on laborer who does very little, if any, writing.

54. Students are provided, then, with quite a bit of information about the different communication skills needed to do a job. The profile, as a very general index, is then summarized in another page so that the student can compare work demands for these skills. This page compares the skills needed as a landscape architect and gardener.

55. This is the page comparing the communication skills required in engineering. By having an opportunity to compare needed skills, students should grasp the idea that jobs differ greatly in the skills required. With this insight, students can build on feelings of hope rather than hopelessness.

56. The career briefs component has been developed with all deaf students in mind. They have not been prepared for any one segment of the deaf student population. They can be used with equal advantage in both academic and vocational education classes.

57. The career briefs used many terms like those listed. In the early stages of program development, these may be difficult for the students as they use the career briefs. But, you must remember, these are terms which are used over and over in all the program components.

58. These terms are used in the CISAG games as well as in the field visits and the work function slide series. This consistent and repeated use of the terms is a part of the plan for student vocational learning-maturation. It is a part of the vocabulary basic to career education.

59. Understanding career education terms can be easily compared with other subject matter where it is necessary to teach deaf students different terms. For instance, the science teacher introduces "sedimentary" rock and the English teacher works for vocabulary development using "impromptu" or "connoisseur."

60. An increasing number of publications, such as the Deaf American, are including profiles of deaf workers in various occupations. Articles such as these are excellent sources for extending career insights and understandings.

61. In discussing occupational information, it is important to discuss job accommodation. This deaf worker is explaining how work activities have been "tailored" or modified to accommodate him on the job. This type of activity can serve as an important part of motivating deaf youngsters and raising their level of aspiration.

62. New devices are constantly being introduced which make it possible for deaf people to function in jobs which may previously have been "out of the question." The potential for even greater changes in the years ahead mandate a program of career exposures that help deaf students to keep options open rather than close them.

63. Deaf students may want to pursue some of the information contained in the brief on an individual basis. Teachers and counselors should be ready to discuss these personal concerns or quests for information.

64. This rehabilitation counselor, who is using the career brief series, is another individual who may be available to supplement the work of the classroom teacher.

65. The Career-of-the-Week is a technique for providing students with regular exposures to career opportunities. Notices in the campus newspaper or daily bulletin, as well as posters and signs, serve as reminders for students and teachers.

66. This classroom teacher is implementing the Career-of-the-Week idea by using the career brief with her students.

67. This classroom teacher has elected to show a film in conjunction with the Career-of-the-Week. Captioned films covering a variety of occupations are available as another means of extending the career information services.

68. Some teachers may wish to highlight the work function associated with the Career-of-the-Week. In this instance, the teacher is discussing the coordinating and advising work functions associated with the work of a school counselor.

69. Since the number of career briefs presently available is limited, teachers and students will find the Occupational Outlook Handbook a useful supplemental aid. It is written for hearing students and does not highlight the communication skills required.

70. The Occupational Outlook Handbook can be used to obtain the most recent information on wages and salaries since this information is not reported in the career briefs. This page from the Occupational Outlook Handbook gives hourly wage information for plumbers and pipefitters in a dozen key cities throughout the United States.

71. The Encyclopedia of Careers is another reference that teachers and students can use. While materials like this two-volume set are limited in their value to deaf students, they provide exposures to the world of work that young people need now.

72. The pay-off for the career education effort is more difficult to assess. In a short term view of a life-long process, teachers can assess learning as students master vocabulary, expand insights or extend concepts. Teachers can observe these gains as they work with students over a period of time.

73. The long-term gains, however, may never become evident to the teacher. The students who have become more proficient in the decision making process, have been encouraged by the teacher's career insight expanding support, and who have had their world extended may never return to express the differences these changes have made in their lives. In this sense, teachers must move forward "on faith" alone.

74. If deaf students leaving the protective walls of our institutions are to become successful in the world of work, they must have more than information. With the experiences which are provided by this career education model, hopefully the disappointment and despair which so many deaf people have experienced in the past, will be replaced by an increasing degree of self-fulfillment.

CAREER OPPORTUNITIES FOR DEAF STUDENTS SERIES

A. The following career briefs are available for student and teacher use:

1. Drafting
2. Keypunch Operator
3. Librarian
4. Furniture Upholsterer
5. Tool and Die Maker
6. Core Maker
7. School Counselor
8. Machinist
9. Typist
10. Physicist
11. Accountant
12. Graphic Arts: Photoengraver
13. Graphic Arts: Electrotypers and Stereotypers
14. Graphic Arts: Lithographic Occupations
15. Graphic Arts: Bindery Workers
16. Graphic Arts: Composing Room Occupations
17. Plumbers and Pipefitters
18. Truck Driver
19. Dietitian
20. Welder
21. Guards and Watchmen
22. Meat Cutter
23. Laborer
24. Landscape Architects and Gardeners
25. Engineering
26. Mason and Plasterer
27. Geographer
28. Geologist
29. Automobile and Aircraft Mechanic
30. Theater Arts: Performing
31. Theater Arts: Supporting
32. Systems Analyst
33. Computer Programer
34. Medical Laboratory Workers
35. Medical Record Librarian
36. Surveyor
37. Barber and Beautician
38. Oceanographer
39. Housekeeper, Maid and Janitor
40. Farming

B. The following work functions are represented in the career briefs:

DATA

Synthesizing (0)
- Geologist
- Landscape Architect
- Dietitian
- Engineer
- Geographer
- Theater Arts:Performing
- Oceanographer
- Theater Arts:Supporting
- Physicist

Coordinating (1)
- Librarian
- Gardener
- School Counselor
- Accountant
- Theater Arts:Supporting
- Systems Analyst
- Surveyor
- Computer Programer

Analyzing (2)
- Tool and Die Maker
- Machinist
- Graphic Arts:Lithographic
- Graphic Arts:Composing
- Auto and Aircraft Mechanic
- Theater Arts:Supporting
- Barber and Beautician

Compiling (3)
- Upholsterer
- Plumber and Pipefitter
- Coremaker
- Graphic Arts:Photoengraver
- Electrotypers and Stereotypers
- Mason and Plasterer
- Medical Record Librarian
- Barber and Beautician
- Auto and Aircraft Mechanic

Computing (4)

Copying (5)
- Keypunch Operator
- Typist

Comparing (6)

PEOPLE

Advising (0)
- School Counselor

Negotiating (1)

Instructing (2)

Supervising (3)
- Theater Arts:Supporting
- Housekeeper

Amusing (4)
- Theater Arts:Performing

Persuading (5)

Speaking-Signaling (6)
- Librarian
- Dietitian
- Guard and Watchman
- Theater Arts:Supporting
- Systems Analyst

Serving (7)
- Barber and Beautician
- Maid

THINGS

Setting-Up (0)
- Tool and Die Maker
- Machinist

Precision Working (1)
- Upholsterer
- Plumber and Pipefitter
- Graphic Arts:Photoengraver
- Geologist
- Landscape Architect and Gardener
- Coremaker
- Machinist
- Engineer
- Graphic Arts:Electrotypers
- Graphic Arts:Lithographic
- Graphic Arts:Bindery
- Composing Room Occupa.
- Mason and Plasterer
- Auto and Aircraft Mechanic
- Theater Arts:Supporting
- Physicist
- Medical Laboratory Worker
- Barber and Beautician
- Oceanographer
- Farming

Operating-Controlling(2)
- Keypunch Operator
- Graphic Arts:Stereotypers

Driving-Operating (3)
- Truck Driver

Manipulating (4)
- Welder
- Meat Cutter
- Graphic Arts:Bindery
- Janitor

Tending (5)
- Graphic Arts:Bindery

Feeding-Offbearing (6)

Handling (7)
- Laborer
- Theater Arts:Supporting
- Computer Programer

APPENDIX I

Materials for Session No. 9

I-1 List of Objectives for Session Nine

I-2 Script for "Clarifying Work Attitudes and Values" Training Tape

I-3 "Valuing and The Affective Domain"

Session No. 9 Objectives

The participants will:

1. become familiar with areas and topics which are associated with work attitudes and values.

2. explore the valuing process (choosing, prizing and acting).

3. become aware of several values clarification strategies as they can be applied to work oriented topics.

4. use the five gaming techniques (listening, reflecting, clarification, questioning and seeking examples) to facilitate the valuing process.

SCRIPT FOR CLARIFYING WORK ATTITUDES AND VALUES TRAINING TAPE

Narrator

A well-balanced career education program for deaf students should include an examination of values and attitudes related to work and work situations. In helping students to explore work attitudes and values, you are providing an opportunity for them to become aware of their own beliefs, attitudes and values associated with why and how people work. The purpose of this tape is to introduce some theoretical concepts involved in attitude and values clarification and to demonstrate how you use values clarification strategies in the classroom.

An attitude has been defined as "a set of interrelated beliefs organized around some object, situation or concept." Attitudes play an important role in work behavior. For example, attitudes affect punctuality, neatness, responsibility, attendance and perserverance - all of which are related to job success or failure.

It may help you to think of a value as a standard to which an individual has assigned worth or meaning. In this sense, then, a value represents a type of belief or ideal to which a person attaches a high degree of importance. It is similar to a belief, but it has more intensity. A value is central to one's total belief system. It is a criterion used to determine one's own behaviors or to judge the behaviors of others.

Teachers play an important role in helping students clarify attitudes and values that relate to work. This booklet, called Clarifying Work Values, examines several work-related areas that are loaded with significant attitudes and values. Different strategies are used to examine each area. In this tape you will be introduced to four work-related areas. A short classroom drama will be included to demonstrate a strategy that can be used by teachers to help students clarify their values.

One work-related area is work behaviors. First, students must identify or become aware of work behaviors that are important. The first section of the Clarifying Work Values booklet suggests a number of strategies for identifying work habits that are important in the day-to-day performance of a job. Students should not only know about these work habits but they should understand how they feel about them. Clarifying beliefs and feelings helps to form a basis for examining and evaluating behavior. Let's look in on a classroom where the teacher is using the "Values Continuum strategy." These students are explaining their own attitudes and values regarding punctuality and working under pressure.

Jan: I'm never on time for anything.

Leader: You are usually late?

Jan: I get up late in the morning. It's really hard to get out of bed. And in school I'm late handing in homework.

Mark: I'm not late for anything and lots of times I'm early. I have a paper route and I have to be on time. If I was late, people would get mad at me or call the newspaper office.

Jessica: I guess I'm sort of in the middle.

Leader: Can you explain what you mean by that?

Jessica: Well, I'm always on time getting to classes and getting in in the morning, but I have a hard time handing in homework and papers on time. I get nervous when I have to finish something by a certain time.

Leader: Let's consider working under pressure. In some work, there is no pressure to do things fast or on time, but other work depends on how quickly you can finish it.

Jessica says she gets nervous when there's pressure on her to finish something. Where would you put your "X" on this line?

Jessica: I guess it would go over here.

Kim: I don't mind being under pressure. I like lots of homework and I don't mind tests either.

Mark: I don't like a lot of pressure.

Leader: Do you feel there's pressure on you when you have to take a test or give a report?

Mark: Yeah, I hate to have to do something in a hurry.

Leader: Are you saying that you don't like to work under pressure?

Mark: Yes.

Leader: Do you want to change your marker?

Narrator

Another area is concerned with the conditions of work. Students are asked to think about whether they want to work inside or outside, whether they want to work at one job station or move around, or how they feel about working where certain dangers, odors or poor ventilation have to be endured as part of the job. It's one thing to read about the conditions of work, but to examine and rank some of these factors as isolated concepts is a much more meaningful activity. In the following classroom segment, a teacher is using a values clarification strategy called Rank Order. In addition to making students aware of various conditions of work, this strategy engages them in the process of choosing. It's a simple technique. Students are given a statement or question and three alternatives. They must respond to the question by rank ordering their choice of these alternatives.

Leader: Would you explain your choices, Jessica?

Jessica: I like to do things outside: hiking, taking pictures, camping, everything. Indoors is too stuffy. I feel uncomfortable. The air isn't fresh, either.

Leader: Would you like to have a job where you were outdoors a lot?

Jessica: Sure. I wouldn't want to sit in an office all day. I like to be moving around, doing things all the time.

Leader: Would it bother you to be inside some of the time?

Jessica: I guess that would be OK. Maybe some of both. But still I'd rather be outside.

Kim: I spend most of my time inside. I like to build models and make things with wood. It's comfortable indoors.

Leader: So you like it indoors but not outdoors?

Kim: It's always too hot or too cold outside. Swimming's OK, but only once in a while.

Leader: Do you think that you would like to have an "indoors" job?

Kim: I think so.

Leader: Now, let's rank each of these. Who would like to begin?

Jan: I like sailing and swimming and I'd like to maybe teach people how to sail or swim. Working in the woods would be OK if I knew where I was! I'm afraid of high places and I got sick on an airplane once. I wouldn't want to work in the air.

Mark: The woods have a lot of animals and birds and I'd like to take pictures of them. And in the fall the leaves have different colors. I don't swim so good and I don't like real high places so I don't think I'd want to work on the water or in the air.

Narrator

Before moving to other areas of work attitudes and values we should take a few minutes to examine the kind of learning involved in attitude and value formation. Working with attitudes and values requires a different type of learning objective than you regularly use in subject matter classes. It can be called affective learning. The learning objectives for the affective domain can be arranged in a hierarchy that describes the different levels of attitude and value formation. Please refer to page 1 of your handout for a diagram. You will probably be using the lower levels of this hierarchy with your students.

As you can see, affective learning begins with exposures that attract attention to, or make students aware of a concept. The next level objectives are concerned with student responses that acknowledge acceptance or rejection of the concept or some degree in between. At the valuing level, some degree of emotional significance or value is attached to the concept such as from a preference to a commitment. At the organizing level, the value which is being internalized must be related to and integrated with other values which the individual holds. Characterizing refers to the consistent and regular use of the value in everyday behavior where it can be observed by other people.

Another area in the work attitudes and values component is worker motivations and worker satisfactions. Six factors are known to be associated with the motivation to work: recognition, achievement, possibility of growth, advancement, the work itself, and responsibility. Eight factors are known to be sources of worker dissatisfaction. They are salary, interpersonal relations, supervision, company policy and administration, working conditions, personal life, status, and job security.

In the following classroom sequence the students are using the values clarification strategy called "What would you do if . . . ." You will notice that the students are examining work behaviors associated with work dissatisfaction.

Leader: What would you do if your boss was not fair to you? Jan?

Jan: I'd quit!

Leader: OK. How about you Mark?

Mark: I'd go and tell the boss that I thought he was wrong.

Leader: Jessica?

Jessica: I would forget about it. Maybe the boss wasn't feeling well.

Leader: Kim?

Kim: I wouldn't do anything. I would wait and see what happened.

Leader: OK, what would you do if you could not "get along with another worker?" Mark?

Mark: I'd tell the boss that the other person wasn't doing the right thing.

Leader: Jessica?

Jessica: Mark, what if you were the one who was wrong?

Mark: I wouldn't start trouble with anyone.

Leader: Jessica, what would you do if this happened to you?

Jessica: I would try to talk to the other person. I think talking is the best way to solve a problem.

Leader: Jan?

Jan: I'd just stay away from that person. If I tried to talk to her, maybe it would just get worse.

Leader: Kim, what would you do?

Kim: I think I'd wait a while and maybe it would get better.

Leader: OK, what would you do if the place where you worked was always cold? Jan?

Jan: I'd wear a real warm sweater and see if that helped.

Leader: Mark?

Mark: I'd tell the boss that it was too cold. I'd tell him to have more heat.

Leader: Have you ever worked where it was too cold?

Mark: Our classroom is cold sometimes.

Jessica: I'd find out if other people thought it was cold. Then we could tell the boss together and maybe he would make it warmer.

Leader: You think a group of people could influence the boss?

Jessica: Yes. That's what I'd do.

Leader: Kim? What would you do if the place where you worked was always cold?

Kim: I think I'd move where it was always warm.

Narrator

The book, Values and Teaching, can help you to assist students in clarifying values. The authors emphasize three procedures in the valuing process. Please note these procedures on page 2 of your handout. They are defined as follows:

> the first procedure is CHOOSING and implies a choice that is made freely, from alternatives, after thoughtful consideration of the consequences of each alternative.
>
> the second procedure is PRIZING and implies being happy with a choice and willing to affirm the choice publicly.
>
> the third procedure is ACTING and implies doing something with the choice repeatedly in a pattern of living.

The valuing process offers another way of understanding how and why you are helping students to clarify their individual work attitudes and values. The three steps in the process are similar to the learning objectives for the affective domain. Page 3 of your handout shows the relationships.

Choosing corresponds closely to the attending and responding levels. Prizing is similar to the valuing level in that the individual attaches significance to the choice and is making a commitment to it. Acting, or behaving in accordance with the value, parallels characterizing.

The acting phase of the valuing process can be treated in the classroom using a strategy that relates to worker motivation. The strategy called "What do you do when . . ." helps students examine their behaviors and feelings in real situations that in turn relate to motivating factors in work settings. Watch the next dramatization to see how this strategy can be employed.

Leader: What do you do when you are blamed for something and it is not true?

Jessica: I get upset and I yell. It's not fair to be blamed for something that I didn't do.

Mark: I just say it's not true. If they don't believe me, that's too bad.

Jan: I try to explain why I didn't do what they think, so there won't be a misunderstanding.

Kim: I don't do anything. I don't want to waste my time trying to explain.

Leader: Let's change this to "What do you do when the work you are doing becomes boring?"

Mark: Do you mean homework?

Leader: I mean any kind of school work, homework, or jobs you have at home, or paper routes and other work you get paid for.

Mark: If it's homework, I quit and do something else. Later I try it again.

Leader: Jessica?

Jessica: If I'm bored, I do a lousy job. I washed our car last Saturday and I got bored. My father got mad because I missed some of the dirt.

Kim: I fall asleep!

Leader: Let's do one more. What do you do when your teacher gives you too much homework?

Jan: I do what I can and tell him I couldn't finish the other.

Mark: I tell the teacher that there was too much homework and that it's not fair.

Leader: What if the teacher tells you he doesn't care what you think is fair?

Mark: I'd get really angry.

Kim: I would tell my parents and ask them to talk to my teacher.

Jessica: Me too. My parents told me if I have a problem with my teacher, I should tell them and they would fix it.

Narrator

There are several things to remember when you are helping students to clarify work attitudes and values. First, it is important that the atmosphere is accepting and non-judgemental; labels of "right," "wrong," "good" or "bad" should not be attached to student values. Second, while you may share your beliefs and values (and you will probably be asked to do this), students must have the opportunity to choose freely and explore the consequences of their own choices. Third, you must be prepared to deal with disagreement among students, and you can promote broad and varied opinion if you maintain an atmosphere where acceptance of the individual is paramount.

Work values clarification does not involve traditional learning that stresses memory and recall. It helps to relate the feelings of students to their beliefs, attitudes and values. Teaching students to know facts is replaced by helping students learn to express their attitudes and values.

VALUING AND THE AFFECTIVE DOMAIN

5. CHARACTERIZING

   Acting or behaving regularly

4. ORGANIZING

   Relating or integrating

3. VALUING

   Attaching significance or value
   acceptance, preference, commitment

2. RESPONDING

   Accepting-rejecting

1. ATTENDING

   Attracting attention-awareness

LEARNING OBJECTIVES IN THE AFFECTIVE DOMAIN

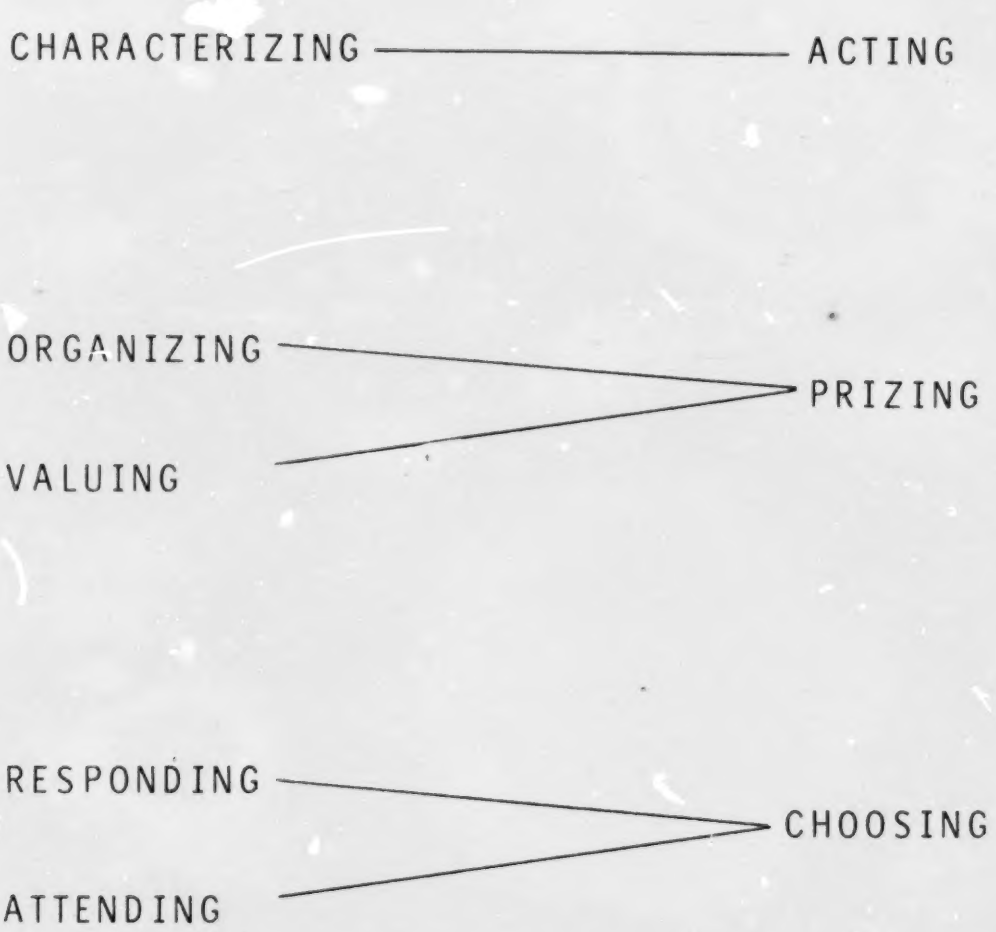
STAGES IN THE VALUING PROCESS

CHOOSING: (1) Freely
(2) From alternatives
(3) After thoughtful consideration of the consequences of each alternative

PRIZING: (4) Being happy with the choice
(5) Willing to affirm the choice publicly

ACTING: (6) Doing something with the choice
(7) Repeatedly, in a pattern of living

THE RELATIONSHIP BETWEEN THE VALUING PROCESS AND AFFECTIVE LEARNING OBJECTIVES



APPENDIX J

Materials for Session No. 10

J-1 List of Objectives for Session Two

J-2 "Directions for Scoring and Interpreting Attitudes Toward Vocational Development"

J-3 "In-Service Self Evaluation"

Session No. 10 Objectives

The participants will:

1. review and re-evaluate the five components of a developmental approach to career education.

2. report on the nature of their involvement with the career education program.

3. explore the achievements and problems they have encountered in working with one or more of the program components.

4. reassess their own attitudes and beliefs about career development.

DIRECTIONS FOR SCORING AND INTERPRETING

Attitudes Toward Vocational Development

1. Determining the "new" attitudes score.

   The "new" score represents attitudes that reflect the newer beliefs and opinions about career development and career education. To determine the "new" score, add together the values of the responses for the following items and assign a positive (+) value.

   2, 5, 6, 7, 9, 11, 12, 15, 18, 23, 24, 25, 27, 28, 30, 31.

2. Determining the "old" attitudes score.

   The "old" score represents the older or more traditional beliefs about career development and career education. To determine the "old" score, add together the values of the responses for the following items and assign a negative (-) value.

   1, 3, 4, 8, 10, 13, 14, 16, 17, 19, 20, 21, 22, 26, 29, 32.

3. Determining the total score.

   Find the absolute difference between the sum of the "new" and "old" scores and take the sign of the larger number.

4. Interpreting the score.

   Although this instrument has not been normed, the results may be observed in this way. A large positive score (over plus ten) reflects attitudes toward career education that are compatible with the newer theories about career development and the more modern approaches to career education. A large negative score (over minus ten) reflects the attitudes established on traditional theory and practice. Scores ranging from 0 to +10 or -10 reflect ambivalent attitudes or a combination of newer and older beliefs which prevent either philosophical point of view from prevailing.

5. Interpreting pre and post scores.

   It is expected that participants in all ten sessions of the in-service program will show a growth toward the newer beliefs about career development and career education. Thus scores should change in a positive direction. Movement toward acceptance of the newer beliefs can begin at any point on the scale beginning with -64, representing strong or complete agreement with the traditional beliefs.

IN-SERVICE SELF EVALUATION

Directions: Respond to each item by checking (✓) the appropriate column. If your answer is yes or partly yes, check Yes. If your answer is definitely negative, check No.

	YES	NO
A. Session 1 - Explorations in Career Education		
1. Did you learn the ...		
a. five components of the model for a developmental approach to career education?	a ___	___
b. new concepts concerning vocational learning-maturation?	b ___	___
2. Did you clarify your attitudes toward ...	2	
a. career development?	a ___	___
b. your own involvement with the career development of deaf students?	b ___	___
B. Session 2 - Career Insights and Self Awareness Gaming		
1. Did you meet the objectives with respect to ...	1	
a. knowledge of the CISAG materials?	a ___	___
b. awareness of several internal factors associated with career evolvement?	b ___	___
2. Can you differentiate between the career choice considerations of "self" factors and world of work opportunities?	2 ___	___
C. Session 3 - Learning the Gaming Techniques		
1. Did you learn the ...	1	
a. procedures for establishing the climate for gaming?	a ___	___
b. five gaming techniques for the gaming process	b ___	___
2. Were the problems which might arise when using the gaming techniques during the gaming process identified for you?	2 ___	___
3. Were you shown how to deal with the above problems?	3 ___	___

	YES	NO
D. Session 4 - Learning About the Structure of Occupations		
1. Did you learn the U.S. Dept. of Labor classification system for occupational titles under work functions?	1___	___
2. Are you able to . . .	2	
a. use the Dictionary of Occupational Titles and other reference books to classify occupations and work activities according to work functions?	a___	___
b. recognize job stereotypes and outdated occupational classifications?	b___	___
c. identify career opportunities for deaf people?	c___	___
E. Session 5 - Learning About Work Orientations and Work Functions		
1. Do you understand the terms and game plays in the Data-People-Things Puzzle game?	1___	___
2. Can you identify specific activities from your life at home, in school or in the community and relate them to the various work functions?	2___	___
F. Session 6 - Using the Work Function Slide Series In The Classroom		
1. Did you have time to observe the 23 different work function slide series and accompanying Teacher's Manuals?	1___	___
2. Can you identify at least one curricular area for which each work function slide set could be used to enrich that curriculum?	2___	___
3. Can you identify classroom tasks and relate them to the activities of the working world and everyday life?	3___	___
4. Do you have the skills specified to use the work function slide sets, i.e.	4	
a. Do you know when to use the work function slide sets in your content teaching?	a___	___
b. Can you use the Teacher's Guide to learn about appropriate introductory and follow-up activities to use with the slide sets?	b___	___

		YES	NO
G.	Session 7 - Seeing Workers on the Job		
1.	Can you describe how field visits reinforce and expand the work function concepts?	1____	____
2.	Do you know how to proceed in identifying and contacting personnel from business and industries in the community where field visits might be made?	2____	____
3.	Have you gained some insights into employer's feelings concerning the employment of deaf workers?	3____	____
H.	Session 8 - Providing Information About Jobs		
1.	Do you understand the four skills in communication which must be considered in the career choice process?	1____	____
2.	Can you list several different ways to integrate use of the career briefs into a career development program?	2____	____
3.	Have you gained some insights into the needs of deaf youth for career information?	3____	____
4.	Can you list at least one other reference which provides information about jobs?	4____	____
I.	Session 9 - Clarifying Work Attitudes and Values		
1.	Can you list several areas and topics associated with work attitudes and values?	1____	____
2.	Can you list the three steps in the valuing process hierarchy?	2____	____
3.	Can you list at least four different values clarification strategies?	3____	____
4.	Can you use the five gaming techniques when leading a values clarification session?	4____	____